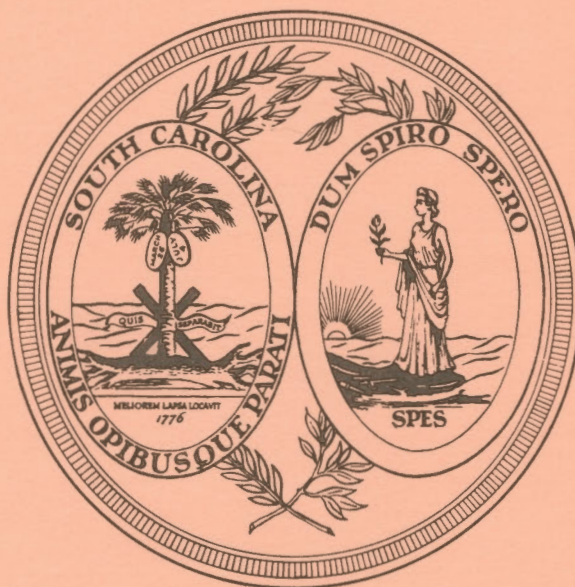


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# SOUTH CAROLINA FORESTRY COMMISSION



## ANNUAL REPORT 1992-1993

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State Budget And Control Board

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STATE DOCUMENTS



S.C. Forestry Commission

Annual Report

1992-93

The Honorable Carroll A. Campbell, Governor, and to the General Assembly of South Carolina:

Pursuant to Section 48-23-90 of the Code of Laws of South Carolina 1976, as amended, which provides that the Commission shall "inquire into and make an annual report to the General Assembly upon the forest conditions in the state, with reference to the preservation of forests, the effect of the destruction of forests upon the general welfare of the State, and other matters pertaining to the subject of forestry and tree growth, including recommendations to the public generally as to reforestation". I have the honor to submit the report of the Commission for the period of July 1, 1992 to June 30, 1993.

Respectfully submitted,

STATE COMMISSION OF FORESTRY

Boris Hurlbutt, Chairman



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**STATE COMMISSION OF FORESTRY**

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**MEMBERS OF THE COMMISSION**

**Boris Hurlbutt, Chairman, Walterboro**

**Lawrence J. Bloomer, Vice Chairman, Easley**

**Joel R. Thrift, Westminster**

**Joe P. Simpson, Lancaster**

**George E. Callaway, Manning**

**G. Edward Muckenfuss, Summerville**

**Charles E. Williams, Georgetown**

**Sara Lee Simons, Florence**

**Dr. Max Lennon, President, Clemson University, Clemson**

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**ADMINISTRATION**

**J. Hugh Ryan, State Forester and Secretary to the Commission**

**H. Gilbert Brown, Deputy State Forester**

**Dean Carson, Technical Assistant to State Forester**

**Judy J. Weston, Legislative Activities Coordinator**

**John M. Shirer, Division Director, Engineering**

**Wray E. Freeman, Division Director, Field Operations Support**

**Joe M. Richbourg, Division Director, Administration**

**Marvin W. Spearman, Division Director, Field Operations**



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## ADMINISTRATION DIVISION

The Division of Administration supports the Forestry Commission's employees and programs through policies and procedures relating to budgeting, accounting, personnel services, purchasing and data processing.

### PERSONNEL SECTION

The Personnel Section administers personnel management programs and policies for the Forestry Commission. Major program areas are employee relations, classification and compensation, personnel and position records management, recruitment, employee benefits, affirmative action, and worker's compensation.

#### Workforce

The South Carolina Forestry Commission has a total of 564.55 authorized full time equivalent positions in 63 separate job classifications. Of these positions, 530.54 are funded by state appropriations. Additionally, there were 36 temporary positions funded through the Federal Emergency Management Agency (FEMA).

#### Personnel Turnover

An analysis of employee turnover data reveals that 45 employees left their jobs during the fiscal year. This was unchanged from last year. There were 23 employees hired.

#### Employee Injuries

Most Commission personnel work in positions having a higher than normal risk of injury. The safety program, through the leadership of the Training and Safety Section, is directed toward reducing this risk. There were 46 job related injuries reported during the fiscal year, a 6% decrease from last year.

#### Overtime Claim

A suit seeking compensation for alleged overtime filed on behalf of 33 current and former Fire Tower Attendants is still pending in Federal Court. The firm of Gignilliat, Savitz and Bettis is representing the Forestry Commission in this action.

## **PURCHASING SECTION**

The Purchasing Section administers procurement operations and policies for the Forestry Commission. Major areas and responsibilities, in addition to the supervision of all purchasing activities, include equipment specification development, formal and informal bids, contract awards and administration, central warehouse operations, insurance operations, Federal Excess Property acquisition and inventory management, Minority Business Utilization, procurement training and procurement information updates.

### **Procurement**

Purchases and leases are contracted for in accordance with the S. C. Consolidated Procurement Code by this Section and the S. C. Materials Management Office. The Purchasing Section was responsible for the supervision of over \$5.2 million in expenditures for goods and services during the fiscal year.

### **Central Warehouse Operations**

Approximately 495 items, supplies and repair parts are maintained in stock to supply needs of Commission field units. A total of 1,500 issues were made in 1992-93 from the Central Warehouse. Federal excess property and supplies, in addition to Forestry Commission uniforms, are also maintained and issued through the Central Warehouse.

### **Insurance**

The Commission's fleet of 379 vehicles are insured through the Insurance Reserve Fund. Building and personal property coverage amounts to \$14,977,110.

### **Federal Excess Property**

Over \$1,355,000.00 in equipment and supplies were obtained this year through the U.S. Forest Service Federal Excess Property program. These items are for use in the Commission's fire control program and by rural fire departments. The Purchasing Section administers the acquisition and disposal of this property and maintains records on the \$3.9 million inventory of items with an acquisition value of \$500 or more.

### **Minority Business Utilization**

The Commission encourages utilization of minority vendors for equipment, supplies and services and submits a plan yearly to the Office of Small and Minority Business. Commission purchases to small and minority businesses amounted to \$27,454.00 in the past year.

### **Fixed Assets and Property Management**

The commission has fixed assets valued at \$16,388,404.00, as of June 30, 1993. S.C. State Budget and Control Board's office of Property Management placed new replacement value on the Commission's buildings and improvements at \$19,884,732.

## DATA PROCESSING SECTION

The Information Systems Section oversees and directs the computer resources and needs of the Forestry Commission. The computer system currently includes a Unisys mid-range computer, approximately 70 microcomputer workstations, 10 Apple Macintosh desktop publishing systems<sup>15</sup> Personal Computers, and the printers, scanners, modems, and other peripheral devices appropriate for these computers. A senior Programmer/Analyst position was added in this fiscal year.

During the past year, the Information Systems Section completed installation of the agency's state-wide network of district offices by installing Spartanburg and Newberry Districts. With these installations, it became possible to send electronic mail throughout the agency, and to provide for entry of warehouse tickets, personnel leave records and fire reports from the districts. This has increased the timeliness and accuracy of the records. Plans were begun to include the Taylor Nursery on the network as well, in order to provide the capability to perform over-the-counter seedling sales and further expand the usefulness of the network.

Additionally, a series of IBM-compatible personal computers were installed in Urban Forestry offices in Greenville, Camden and Charleston. These machines are intended to run an urban forestry expert system which assists landowners in determining the particular species which are suited to particular environmental factors. This project promises to be a very high-profile opportunity for the Forestry Commission to serve the state's landowners.

Plans were developed and equipment was procured to download data from Global Positioning Systems receivers and to map the data recorded. These machines are expected to be installed by the beginning of January, 1994. Also, plans were made to install office automation systems in the seven Area Offices which are not located in the same building as their District Offices. These systems would allow Area Offices to perform word processing, spreadsheets, and other functions. These units are expected to be installed by the beginning of April 1994.



**S.C. FORESTRY COMMISSION  
FINANCIAL STATEMENT  
FISCAL YEAR 1991-92**

**REVENUES:**

**GENERAL FUNDS**

State Appropriations	\$16,603,303.38
B&C Board Allocation (Budget Cut)	<u>-646,861.00</u>

**TOTAL GENERAL FUNDS**

**\$15,956,442.38**

**FEDERAL FUNDS**

Federal Grants	4,548,311.78
FEMA/Hugo	<u>913,391.70</u>

**TOTAL FEDERAL FUNDS**

**\$5,461,703.48**

**EARMARKED FUNDS**

Sale of Junk	1,738.80
Sale of Services	11,661.84
Misc Transfer - Other Funds	-4,764.62
Hunting & Fishing Licenses	41,517.89
Burning Assistance Fee	29,456.00
Fire Lane Fee	59,604.50
Timber Marking Fee	11,326.01
Construction of Water Bar	7,010.00
Stand by Prescribed Burning	6,394.50
Sale of Timber	1,018,267.99
Insurance Claims	11,454.39
Land Rentals	123,200.00
Equipment Rentals	8,898.80
Sale of Assets	18,007.01
Forest Product Assessments	<u>314,789.43</u>

**TOTAL EARMARKED FUNDS**

**\$1,658,562.54**

**GRAND TOTAL REVENUES**

**\$23,076,708.40**

**EXPENDITURES:**

Transferred to General Fund	842,098.07
Appropriation Lapse	2,195.50
State	15,954,246.88
Federal	5,457,718.20
Earmarked	<u>1,900,049.83</u>

**TOTAL EXPENDITURES**

**\$24,156,308.48**

\*Expenditures exceeded revenues due to utilization of earmarked carried forward funds and federal accounts receivable.

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## ENGINEERING DIVISION

The Engineering Division is comprised of the Training/Safety Section and Construction/Real Property Section. These sections assist in developing plans and gathering information which affect the present and future operations of the entire organization.

The Division provided support to the field and central offices through coordination of training programs and projects on both local and statewide levels. When needed, personnel from the Division provide assistance and service which ranges from labor to the technical adaptation and development of equipment and structures.

### **CONSTRUCTION AND REAL PROPERTY SECTION**

The Construction and Real Property Section of the Engineering Division is responsible for development and implementation of both short and long range permanent improvement plans for the field offices and other divisions with detail planning, coordination and execution of construction, renovation and major repair projects. This assistance includes development of plans and specifications, approval by other agencies, budget management, materials purchasing and coordination of labor throughout the project.

Real property transactions and records for the purchase, transfer or sale, as well as leases and easements are coordinated by the section.

The mail, supply and cleaning services of the Central Office were moved to the section early in 1991. Through review and redefinition of assignments we are attempting to improve the efficiency and effectiveness of these services as they relate to both the Field and Central Offices.

In fiscal year 1992-93 the responsibilities of solid waste recycling and energy management were added to the section's duties. Both recycling and energy management involve the development and implementation of plans and programs to meet goals set by the State Budget and Control Board for the entire agency.

The accomplishments of this section depend heavily on the contributions of skills and labor by field and central office personnel. The following list reflects the major achievements and the accomplishments of the section.

#### **Construction:**

- Construction of the seed extractory facility at Niederhof Seed Orchard was completed and the facility was placed into operation in December 1992.
- Handicap entrance ramps were constructed at all field offices, where needed, to meet the requirements of the Americans with Disabilities Act. A contract has been

signed to construct a ramp and parking area at the State Headquarters.

- Buildings were constructed to house nine radio repeater stations at fire tower sites.

- Construction was completed on the picnic shelter at Harbison State Forest.

- Construction was started on the rest room facility for the Harbison State Forest Picnic Area. This work is about 40% complete.

### **Renovation and Repairs:**

- A new office facility was provided at Manchester State Forest by renovations and additions to a residence which was moved from the Wedgefield area to the Forest Headquarters Complex.

- The Orangeburg, Varnville and Barnwell Tower residences were renovated and converted to Area Offices.

- A doublewide modular office was moved from Kingstree to Marion and is being renovated for use as the Marion Area Office.

- Renovations of the warehouse portion of the Sign Shop/I&D building will provide a radio parts storage room and an office for maintenance personnel.

- A contract for renovation on the Taylor Nursery Residence was signed in late May. This project will be complete in late August.

- Renovations were started on the Hodges Tower residence to convert it to the Greenwood Area Office.

### **Permanent Improvement and Land Acquisition:**

- A doublewide modular office was purchased for use as the Orangeburg District Office.

- All preliminary work was completed for the purchase of 34.4 acres at Taylor Nursery. This acquisition will be completed when approved by the Budget and Control Board and the Joint Bond Review Committee.

### **Planning:**

- Developed an annual plan for permanent improvements with specific projects and plans for construction, renovations and repairs.

- Developed plans for renovations to convert the Bonneau Tower residence to an



Area Office . Work will begin in July 1993.

- Developed plans for an equipment shed to be constructed at Manchester State Forest in 1993.

#### **Mail and Supply Activities:**

- A new procedure for handling mail in the Headquarter Complex was proposed and adopted. When implemented this procedure will significantly improve the mail distribution.

#### **Solid Waste Recycling:**

- A State Law, passed in 1992, requires all state agencies to develop and follow a comprehensive plan for recycling a significant portion of the solid waste produced within the agency. During four (4) one week periods in fiscal 1992/93 each office sampled the type and quantity of all waste. This information was used to develop a feasible recycling plan to be implemented in 1993/94.

#### **Energy Conservation:**

- Based on information obtained from the field offices and information on energy consumption in the Columbia Complex, an Energy Conservation Plan was developed for the entire agency. The plan was submitted to the State Energy Office for approval. The plan will be updated and revised during 1993/94.

#### **Other Miscellaneous Accomplishments:**

- General maintenance and repair to all facilities in the Columbia Complex and assistance to the field offices as needed.

- Review and recommendations on all easement requests on land owned by the Forestry Commission.

- The disposition of fire towers, tower residences and tower sites. The project started in 1992/93 due to changes in the fire detection system. Work in this area will continue for several years.

#### **TRAINING AND SAFETY SECTION**

The section is responsible for establishing and implementing policy and procedures governing training and safety for the Commission. The section coordinates training for all areas of expertise within the agency. The section also maintains permanent training records on all employees.

The section works to implement operating procedures to create a safe working environment for all employees. Ten safety committees, one in each of the agency's separate operating units, are coordinated through the Chief of the section. Quarterly meetings of the Safety Chairpersons were held to review accomplishments and to increase their safety knowledge and awareness.

The section prepares the annual training calendar and coordinates monthly training for field supervisors. The section conducted an annual review of all employee training records.

The technician program that was discontinued in 1991 was reactivated with an initial course in forestation. Forty employees are involved in the forest technician course.

The section has worked with the Division Director of Field Operations to identify training needs for field and supervisory personnel and to establish training standards and position requirements. Eight newly appointed supervisors attended the "Introduction to Supervision" course held in Columbia.

Refresher training was held in the fall for sixty nine (69) employees trained as First Responders. In addition, a representative from each district and nurseries/tree improvement was trained in first aid instruction.

The section conducted the basic fire school, December 14-18. Thirty employees attended. In February, the prescribed burning school was held at Sand Hills State Forest for 30 employees and cooperators.

The section has worked closely with the fire management staff in conducting S-190, S-390 and S-339 courses.

During the year, safety audits were conducted at Niederhof Seed Orchard and Camden District. The section will continue to hold monthly safety reviews at selected field facilities.

## **EQUIPMENT & COMMUNICATION SECTION**

The Equipment Section is responsible for development and implementation of statewide programs concerning use, design and maintenance of specialized forest fire control equipment.

The section is responsible for providing technical assistance and advice to district repair shops, developing specifications for all forestry equipment and the motor vehicle fleet, and arranging training for all field mechanics.

All regular and specialized fire control equipment is modified and processed for field use at the Commission's Central Repair Shop. The Central Repair shop personnel made numerous repairs to Forestry Commission vehicles and equipment and manufactured fire control equipment. The following list is some of the major accomplishments performed by the shop.

- Provided maintenance assistance to the District Repair Shops
- Processed new motor vehicle equipment
- Rebuilt a tandem axle lowboy trailer
- Painted 36 vehicles for district, nurseries and Columbia Headquarters
- Refurbished three fire plows.
- Fabricated light bars for ranger trucks

The Equipment Section assisted in brining on line Taylor Nursery and Niederhof Seed Orchard maintenance facilities in accordance with DMVM guidelines.

All Districts and state forest and central repair shop maintenance facilities were certified by the Division of Motor Vehicle Management.

The Equipment Section established Tilghman and Piedmont Nurseries maintenance facilities as satellite maintenance facilities for district shops.

### **Purchased**

- One (1) Crosley lowboy trailer, Clarendon County
- One (1) Chevrolet Blazer for state lands coordinator
- One (1) Chevrolet Blazer - Manchester State Forest
- One (1) Chevrolet Blazer - Sand Hills State Forest
- Three (3) single axle truck tractors (Berkeley, Clarendon and Dorchester Counties)
- Traded three (3) JD750s for three (3) JD550s (Clarendon, Berkeley, and Dorchester Counties)

### **Training Arranged by Section**

- Twelve (12) mechanics attended an eight day session on specialized electronics taught by Greenville Technical College
- Twelve (12) mechanics attended a five day session on Electronic Fuel Injection/Port Fuel Injection taught by Greenville Technical College.
- Three (3) mechanics attended a 10 day session on specialized electronics and EFI/PFI sponsored by Ford Motor Company
- Twelve (12) mechanics attended a one day session on antilock brakes sponsored by the Bendix Corporation.

Three thousand seven hundred and nine dollars (\$3,709.00) was received from the sale of scrap metal.

Personnel fabricated and installed the grounding system for area offices and repeater sites.

A portable building was reconditioned to house a repeater at Long Mountain Tower site (Oconee County).

Permission was received through Division of Motor Vehicle Management to cannibalize transport trucks. The parts from the cannibalized trucks will be used to repair existing trucks presently in use. Three transport trucks were cannibalized.



Two (2) JD450 crawler tractors were cannibalized. Parts will be used to repair present tractors still in use.

The Communication Section is responsible for development and implementation of statewide radio and telephone communications.

The section provided technical assistance, training and advice to each of the district radio technicians.

In October 1992 the Forestry Commission began designing and implementing the new statewide telephone and radio communication system. With the closing of forest fire towers, a network of twenty-three (23) repeaters is being installed and will be operational by October 1993.

Multiline telephone systems were installed at the fourteen (14) area offices for forest fire reporting and receiving.

Two hundred (200) Maxtrac mobile radios were purchased for installation in transports and area offices.

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## FIELD OPERATIONS SUPPORT

The Field Operations Support Division provides operational and technical staff direction to the Forestry Commission field organization in each of the major program areas of forest management, nurseries and tree improvement, forest insects and diseases, and forest fire protection.

### FOREST MANAGEMENT SECTION

The Forest Management Section assists South Carolina citizens with management and development of the forest resources of the state. Programs include Woodland Management Assistance, Reforestation Assistance, Forestry Services, Forest Products Utilization and Marketing Assistance, Resource Conservation and Development, Urban Forestry, and Watersheds. These programs assist owners in growing more timber, aid industries in more efficient utilization of the timber resource, and foster conservation and multiple use of the forest resource.

There are 12.2 million acres of commercial forest land in South Carolina. According to the 1986 U.S. Forest Service Survey, 68% of the land is owned by farmers and miscellaneous private owners. Forest industry owns approximately 22% with 10% in public ownership.

The Forest Management programs are designed to assist the non-industrial private landowner with multiple use management.

#### Forest Management Assistance

Professional foresters from the Forestry Commission provide forest management advice and assistance to landowners. The land is examined and a written forest management plan is prepared. Recommendations for management may include such silviculture practices as forest protection, reforestation, harvesting, prescribed burning, wildlife habitat improvement, and recreation. This year 3,955 management plans were prepared for 301,595 acres.

Where practical, the landowner is referred to consulting or industrial foresters to assist in carrying out the management recommendations. This year 585 cases were referred to consulting foresters and 249 cases referred to industrial foresters.

Commission foresters provide timber marking services to landowners on a limited basis. This year 51 tracts were marked, with 2,097,780 board feet of sawtimber and 5,803 cords of pulpwood designated for harvesting.

#### South Carolina Forest Stewardship Program

The 1990 Farm Bill authorized the U.S. Secretary of Agriculture, in consulta-

tion with the State Forester, to establish a Forest Stewardship Program to encourage the long-term stewardship of non-industrial private forest lands. This is to be accomplished by assisting owners of such lands to more actively manage their forest and related resources by utilizing existing state, federal and private sector resource management and assistance programs. The bill also required the establishment of a State Forest Stewardship Coordinating Committee which would address forestry related issues and provide recommendations to the State Forester on the implementation of the Forest Stewardship, Stewardship Incentive and Forest Legacy programs.

Landowners have stewardship (multi-resource) management plans developed for their property addressing their management objectives. These stewardship management plans are developed cooperatively by various resource agencies and organizations, mainly the South Carolina Wildlife and Marine Resources Department, the U.S. Soil Conservation Service, private consultants, forest industry, and the South Carolina Forestry Commission.

Landowners are provided, through the Forest Stewardship Program, technical assistance in carrying out their stewardship management plans, access to workshops, educational seminars, publications, and information on resources available from the private sector (consulting firms, industry landowner assistance programs, contractors, etc.). Through a companion program, the Stewardship Incentives Program (SIP), cost-share assistance will be available to assist in the installation of approved conservation practices.

Landowners, who are exemplary in meeting the requirements of good stewardship management, are recognized by having their property certified as a Stewardship Forest. Certification consists of being able to display the Stewardship Forest sign, receiving a formal certificate and plaque, and recognition as a good steward of the land.

As of June 30, 1993, 941 requests, covering over 320,000 acres, have been received from landowners wanting to participate in this program. Natural resource professionals have completed 444 plans on 140,500 acres. Most of these landowners are now eligible to receive cost-share assistance under the Stewardship Incentive Program (SIP).

**Summary of Activity  
Stewardship Incentive Program  
FY 1993**

	Cost Share Requests	Cost Share Approved	Acres Treated	Cost Share Earned	Unfunded Needs
SIP 1 Plan Development	0 (0%)	\$0	0	\$0	\$0
SIP 2 Reforestation	110 (25%)	\$304,795	649	\$56,737	\$24,660
SIP 3 Forest Improvement	49 (11%)	\$660,107	205	\$5,855	\$7,732
SIP 4 Windbreak	2 (<1%)	\$0	0	\$0	\$5,113
SIP 5 Soil & Water	39 (9%)	\$26,099	305	\$5,134	\$5,332
SIP 6 Riparian & Wetland	7 (2%)	\$23,296	1	\$5,312	\$11,819
SIP 7 Fish Habitat	3 (<1%)	\$3,225	0	\$0	\$0
SIP 8 Wildlife habitat	217 (50%)	\$264,151	671	\$34,000	\$73,726
SIP 9 Recreation	11 (2%)	\$10,401	0	\$0	\$2,250
<b>TOTAL</b>	<b>438 (100%)</b>	<b>\$692,074*</b>	<b>1,831</b>	<b>\$107,038</b>	<b>\$130,632</b>

\*An additional \$25,814 has been approved but was not posted by ASCS as of 7/1/93.



### **Forest Renewal Program (FRP)**

In 1982 the program was funded for the first time by a \$100,000 state appropriation. This permitted an assessment of \$400,000 from forest industry, and created a \$500,000 Forest Renewal Fund.

The program was funded at the same level for 1992-93.

### **Forestry Incentive Program (FIP) - Federal**

Since 1974, \$18,903.174 have been allocated to South Carolina landowners under FIP.

### **Agricultural Conservation Program (ACP) - Federal**

Agricultural Conservation Program funds are also available to landowners for reforestation.

### **Conservation Reserve Program (CRP)**

The program began with crop year 1986 and was renewed with the passage of the 1990 Farm Bill. Twelve signups have been held with 221,949 acres approved for trees. This year 5,142 acres were planted.

### **Hurricane Hugo Reforestation Project**

A tri-fold pamphlet entitled "Trees Pay" was mailed to approximately 30,000 individuals who own at least 10 acres of agriculturally assessed land. Owners in the following counties were contacted: Lancaster, Kershaw, Sumter, Lee, Clarendon, Williamsburg, Berkeley, and Charleston. The pamphlet contained a postage-paid postcard for the landowner to fill out and return to the Forestry Commission if assistance was desired. Questions on the card and in follow-up telephone conversations sought to verify that the individual had not had any contact with a forestry professional since Hugo.

The Hugo Incentive Program (HIP) was established and funded with \$6.0 million federal dollars (\$3.0 million initial funding plus \$3.0 million more in Spring 1992). HIP is unique in that federal monies are being administered and allocated by a state agency. Further, the SCFC is using the Dire Emergency Supplemental Appropriations Act funding to operate the cost share program. Therefore, all of the \$6.0 million is available to assist non-industrial private forest landowners. The entire \$6.0 million is now spent or designated for applicants.

# FOREST MANAGEMENT ASSISTANCE 1992-93

	Non Cost Share Exams	Non Cost Share Acres	Cost Share Exams	Cost Share Acres	Stewardship Exams	Stewardship Acres	Total Woodland Examinations 1941 to June 1993
Abbeville	45	4427	34	834	5	767	2002
Aiken	51	6099	65	3767	2	1202	3625
Allendale	4	1180	40	2230	7	3035	1209
Anderson	70	5552	27	2209	4	160	3509
Bamberg	2	130	65	2554	9	3667	1877
Barnwell	14	1119	44	1965	4	1994	1799
Beaufort	9	1025	3	271	0	0	544
Berkeley	28	3760	48	3329	2	536	1211
Calhoun	9	1484	48	2722	3	1883	2393
Chars/Lower	16	4663	11	637	7	1184	820
Chars/Upper	9	386	15	3738	1	46	
Cherokee	22	1492	0	0	0		1469
Chester	9	1726	57	5659	10	3071	1753
Chesterfield	27	1532	97	3916	4	625	3612
Clarendon	19	2465	138	7409	12	1446	2398
Colleton	43	5734	52	3378	19	3669	3001
Darlington	28	1875	32	1794	1	349	2365
Dillon	30	1856	35	1528	0	0	1825
Dorchester	21	925	50	2812	8	1539	1308
Edgefield	13	975	57	2663	6	931	1329
Fairfield	31	1645	71	6376	11	3001	2225
Florence	19	927	100	3207	3	1346	3630
Georgetown	10	239	20	1910	12	5549	867
Greenville	99	5369	7	249	1		2224
Greenwood	25	2514	30	1567	11	2272	2379
Hampton	11	595	60	2945	2	815	2314
Horry	50	5954	53	2710	0	0	2943
Jasper	4	368	25	1358	1	270	816
Kershaw	58	5123	100	8158	4	1249	2768
Lancaster	48	2712	56	3298	2	162	2570
Laurens	23	1723	36	1450	4	1086	2268
Lee	13	408	30	1450	2	767	1710
Lexington	54	2662	35	1323	7	712	2667
Marion	11	1197	33	1197	3	1256	1034
Marlboro	35	1457	14	574	0	0	1567
McCormick	16	1223	38	1736	3	1948	1638
Newberry	41	3312	81	3680	11	1080	2906
Oconee	52	1921	10	506	1	228	2585
Orangeburg	29	1996	182	7114	12	5313	5247
Pickens	62	3112	14	556	2	69	2221
Richland	21	987	56	2609	8	884	3207
Saluda	22	2573	81	3341	4	313	2087
Spartanburg	56	2612	21	1099	3	567	2048
Sumter	61	2082	72	5167	17	3159	2741
Union	35	2893	23	1712	4	604	1095
Williamsburg	31	2702	72	4323	15	6292	3364
York	74	6717	2	36	0	0	2966
<b>State Total</b>	<b>1468</b>	<b>113424</b>	<b>2240</b>	<b>123067</b>	<b>247</b>	<b>65106</b>	<b>102136</b>

## STATEWIDE ACCOMPLISHMENTS ALL COST SHARE PROGRAMS REFORESTATION AND TSI

Program	No. of Landowners	Acres Planted	Natural Regeneration	TSI Acres	Cost Share Payments
FRP	109	3,907	1	536	\$369,348
FIP	377	13,709	74	1,545	975,281
ACP	541	10,777	40	2,761	671,940
CRP	157	5,142	0	635	134,138
HIP	245	7,610	12	2,244	1,004,710
SIP	20	649	0	205	62,592
<b>TOTAL</b>	<b>1,449</b>	<b>41,794</b>	<b>127</b>	<b>7,926</b>	<b>\$3,218,009</b>

### Seedling Survival

A total of 510 survival checks were made using a row count or tenth acre plot method for determining survival. Geographically, the northeastern section of the state exhibited the most serious drought conditions, resulting in the lowest survival. A weighted analysis involving all survival checks was used to determine the statewide survival of 81%.

### PLANTING SITES CHECKED BY PERCENT SURVIVAL (WEIGHTED)

DISTRICT	0-49%	50-70%	71-100%	Total Plantings Inspected	Weighted % Survival
CAMDEN	8	11	33	52	82
FLORENCE	5	16	48	69	77
KINGSTREE	2	2	26	30	83
NEWBERRY	1	14	94	109	83
ORANGEBURG	6	28	92	126	80
SPARTANBURG	2	10	36	48	78
WALTERBORO	2	11	63	76	82
	26	92	392	510	81

### Forest Services

Through this program the Commission provides landowners forestry services to assist in afforestation, reforestation, and to maximize production from their woodlands. For these services the landowner is charged the cost of all services performed.

These services were available to landowners during the year:

- Firebreak Plowing—performed by Forestry Commission employees using agency equipment for \$40 per hour.
- Prescribed Burning—performed by Forestry Commission employees using agency equipment for \$12 per acre for the 1st 50 acres, \$10 per acre for the 2nd 50 acres and \$8/acre for all over 100 acres. Firebreak plowing costs are not included. Minimum fee \$100.00.
- Prescribed Burning Standby—an agency tractor and employee on standby at burning site while landowner performs burning under an approved plan for \$15per hour. Minimum fee \$75.00.
- Equipment Rental Program—agency owned tree planters, bedding plows and drum choppers made available to private landowners at rates from \$4 to \$15 per acre.
- Timber Marking—performed by Forestry Commission employees at the rate of \$3 per thousand board feet and \$1 per cord.

FOREST SERVICES ACCOMPLISHMENTS			
SERVICE	# Tracts	Units of Measure	Receipts
Firebreak Plowing	650	1,101 miles	\$57,938.50
Prescribed Burning	55	3,145 acres	\$30,279.00
Prescribed Burning Standby	57	4,303 acres	\$7,841.00
Equipment Rental	37	907 acres	\$8,153.80
Water Bar Construction	17	905 bars	\$7,952.00
Timber Marking	51	2,097,780 BF	\$6,293.37
		5,053 cords	\$5,803.00
Total Dollars			\$124,260.67

### Urban Forestry

Urban forestry seeks to improve the quality of life in populated areas through the wise management of the urban tree resources. Clean air, clean water, aesthetics value, increased property value, noise buffering, energy conservation, and public safety are the products of this endeavor.



The Forest Management Section is responsible for the planning and efficient operation of the Commission's urban forestry technical assistance program.

### **Urban and Community Forestry Grant Program.**

The Urban and Community Forestry Grant Program is a national program funded by Congress through the U.S. Forest Service. South Carolina received \$160,000 base funding to provide technical assistance and training. Pass-through grants in the amount of \$173,000 were provided to county and local governments, non-profit organizations, and educational institutions to develop long lasting urban forestry programs in the state or local area.

### **Small Business Tree Planting Program**

The Forestry Commission awarded 48 tree planting grants under the Small Business Administration Tree Planting Program for 1992, totaling \$204,000. Matching funds or in-kind services were provided by local or state governments. Forty-one contracts were awarded to small businesses to supply and install 1,195 trees on state and local government properties.

### **Technical Assistance**

Three full-time urban foresters provide technical assistance on a regional basis in the Piedmont, Midlands, and Coastal regions of the state. Other Commission forester provide urban forestry assistance in their respective areas on a time-available

<b><u>URBAN TECHNICAL ASSISTANCE</u></b>		
<b>Types of Technical Assistance</b>	<b>Non-Grant Through Forestry Commission T.A.</b>	<b>Grant Program Accomplishments by Grantee (ATB)</b>
Program Development/Expansion	179	NA
Project Management	57	NA
Urban Forest Cultural Practices	1,371	NA
<b>TREES INVENTORIED</b>		
Miles	2	70
Total Trees Inventoried	110	9884
<b>TREES PLANTED</b>		
Seedlings/Whips/Saplings (#)	9,914	0
Street/Park Size (#)	109	579
<b>TREES MAINTAINED (#)</b>	1,867	0
<b>TREES PROTECTED</b>		
Local Ordinances Passed/Revised (#)	5	1
<b>DEMONSTRATION PLANTING PROJECTS (#)</b>	4	17

basis. A full-time Grants Assistant works in the Columbia Office along with an Urban Forestry Coordinator for statewide program management.

### **Tree City USA**

Sponsored by the National Arbor Day Foundation, TREE CITY USA is administered in South Carolina by the Forestry Commission. The program seeks to stimulate and promote the management of urban trees by recognizing towns and cities which meet the following criteria: (1) expenditure of at least two dollars per capita on tree care and planting, (2) establishment of a city tree ordinance (3) a legally constituted Tree Board, and (4) observance of Arbor Day by a mayor's proclamation and official ceremony. South Carolina ranks 23rd nationally with 24 towns recognized as TREE CITY USA.

### **Best Management Practices (BMPs) Monitoring Program**

The latest BMP monitoring results were published in 1993 in "Implementation and Effectiveness Monitoring of Forestry Best Management Practices on Harvested Sites in South Carolina". Copies are available from the SCFC.

Twelve forest landowner meetings were sponsored by the SCFC, statewide, to encourage the use of BMPs while harvesting timber.

### **Resource Conservation and Development Project: Ninety Six District**

The Ninety Six District Resource Conservation and Development Project (RC&D) contains six counties in the S.C. Forestry Commission's Newberry District. These are Abbeville, Edgefield, Greenwood, Laurens, McCormick, and Saluda Counties. The RC&D Committee was initiated and sponsored by private citizens, city and county governments, and Soil and Water Conservation Districts from the six counties. Federal, state and local governments, industry representatives, and others work together on projects that the local citizens consider necessary to develop a better way of life for the people in the project area. These projects are accomplished by developing and conserving the human and natural resources of the area.

The RC&D Forestry Committee's objective is to promote optimum utilization and conservation of the forest resources for the economic well being of the area. Three goals identified by the Forestry Committee are: 1) increase economic development and employment by using forest resources in traditional and non-traditional ways; 2) increase productivity of forestland through improved forest management techniques; and 3) improve protection of the land and water resources by increasing

public awareness of conservation issues.

Fiscal year 1992-93 proved to be another active period for the Ninety Six District RC&D Project. Some of the major accomplishments and activities for the year are outlined as follows:

- Dry Hydrant Project
- Annual Woodland Clinic
- Alternative Forest Product Development Project
- Urban Forestry Support
- Promote Best Management Practices on Forestlands
- Promote Environmental Education

#### **Resource Conservation and Development Project: Crossroads of History**

The Crossroads of History Resource Conservation and Development Project consists of Cherokee, Chester, Fairfield, Lexington, Newberry, Richland, Union and York Counties.

The Project does not fund a forester position, however, forestry assistance to the project is provided by foresters from the Newberry District.

#### **Special Water Quality and Hydrologic Unit Projects.**

The Forestry Commission, in cooperation with Clemson Extension, Soil Conservation Service, Agricultural Conservation and Stabilization Service, South Carolina Department of Health and Environmental Control and South Carolina Land Resources Commission, assists landowners in maintaining high levels of water quality in critical areas throughout the state. The Forestry Commission currently offers technical assistance in reforestation of cutover timber lands, waterbar construction on logging roads and location and design of logging roads and decks.

During the fiscal year, the Commission provided technical assistance on the following projects:

- 1) Lake Bowen Water Quality Project
- 2) Bush River/Camping Creek Water Quality Project



## **NURSERIES SECTION**

The Forestry Commission operated three forest tree nurseries for the production of seedlings for South Carolina landowners.

This year 29,289,252 seedlings were grown and 22,665,397 were shipped. South Carolina's forest industries planted an additional 33,213,226 seedlings on company lands. A grand total of 84,287,351 seedlings were planted on 129,672 acres in the state during the year.

As a result of a decrease in the production of forest tree seedlings, Piedmont Nursery will no longer produce any species of forest tree seedlings. The Piedmont facility will develop white pine, Virginia pine and oak seed orchards. This facility will continue to be used for seedling distribution.

### **Research**

The Forestry Commission continues cooperative research projects with Clemson University, Auburn University and the U. S. Forest Service. The Commission also maintains membership in the North Carolina State University Pine Tree Improvement Cooperative, the N. C. State Hardwood Research Cooperative, and the Auburn University Southern Forest Nursery Management Cooperative.

### **Containerized Seedlings**

Specialized needs exist for seedlings other than bareroot stock grown at Forestry Commission nurseries. To meet these needs, a triple bay greenhouse is maintained at Creech Seed Orchard, Wedgefield. Containerized seedlings, rooted cuttings and progeny test materials are grown at the greenhouse. The greenhouse and associated slathouses give the Commission the capacity to grow a million plus containerized seedlings annually.

### **Forest Tree Seed Collection Program**

Each year the Forestry Commission collects or purchases pine cones and other forest tree seed for seedling production. During the past year, walnut, baldcypress, redcedar, yellow poplar, ash, maple, longleaf pine, white pine, and, red, willow and swamp chestnut oak seed were purchased.



## STATE NURSERIES SEEDLING PRODUCTION BY SPECIES

### BAREROOT SEEDLINGS

Improved Coastal Loblolly Pine	8,200,000
Improved Piedmont Loblolly Pine	12,490,000
Longleaf Pine	5,715,000
Improved Slash Pine	30,000
Improved Virginia Pine	300,000
Improved White Pine (2-0)	365,000
Baldcypress	120,150
Redcedar	224,417
Yellow Poplar	98,000
Improved Sycamore	76,000
Sweetgum	33,000
Black Walnut	50,000
Crape Myrtle	800
Dogwood	6,300
Redbud	800
Bicolor Lespedeza	1,000,000
Sawtooth Oak	70,000
Variety Pack	50,000
Miscellaneous	8,500

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Total	28,837,967
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White Pine (1-0) Not For Sale	375,000
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### CONTAINERIZED SEEDLING (CREECH SEED ORCHARD)

Improved Piedmont Loblolly Pine	15,000
Improved Coastal Loblolly Pine	15,000
Improved Virginia Pine	12,000
Improved Longleaf Pine	352,235
Sawtooth Oak	12,000
Leyland Cypress	31,754
Carolina Sapphire	5,852
Clemson Greenspire	3,404
Deodar Cedar	4,040

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Total	451,285
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Grand Total	29,289,252
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# Forest Tree Seedlings Sales - Distribution by Species / County

## June 30, 1993

COUNTY	IMPROVED COASTAL LOBLOLLY PINE	IMPROVED PIEDMONT LOBLOLLY PINE	IMPROVED SLASH PINE	LONGLEAF PINE	SWEETGUM	SAWTOOTH OAK	YELLOW POPLAR	BALD- CYPRESS
ABBEVILLE	106,000	705,065	0	2,000	0	450	0	0
AIKEN	165,000	9,056,063	2,000	1,631,500	0	950	500	2,000
ALLENDALE	2,090,978	80,000	0	6,000	0	550	2,500	2,000
ANDERSON	0	334,478	1,000	0	0	640	1,000	5,000
BAMBERG	1,908,708	0	0	64,335	0	540	500	0
BARNWELL	2,558,158	3,000	500	119,500	0	1,590	10,000	0
BEAUFORT	725,478	0	500	22,000	0	250	0	500
BERKELEY	2,619,058	10,000	0	889,510	0	350	2,000	500
CALHOUN	272,894	151,000	0	227,000	0	190	2,000	1,000
CHARLESTON	620,120	0	0	511,000	0	820	1,000	3,000
CHEROKEE	0	186,358	0	45	0	1,190	0	0
CHESTER	0	782,068	0	0	0	520	500	0
CHESTERFIELD	1,087,516	85,450	4,500	523,000	0	840	0	500
CLARENDON	2,165,536	0	0	97,000	0	1,170	0	0
COLLETON	1,782,445	80,000	0	121,680	0	290	0	1,000
DARLINGTON	1,142,061	0	0	56,500	0	100	0	500
DILLON	1,017,766	0	0	25,500	0	250	0	1,000
DORCHESTER	2,029,462	0	0	37,500	500	250	0	1,500
EDGEFIELD	0	1,551,978	0	500	0	900	0	0
FAIRFIELD	2,000	2,546,016	0	0	0	840	0	500
FLORENCE	1,039,978	1,225	1,000	5,000	0	1,510	100	650
GEORGETOWN	3,191,560	0	14,500	70,000	0	450	500	2,500
GREENVILLE	0	354,478	500	0	0	540	2,650	1,625
GREENWOOD	0	1,561,978	0	0	0	1,230	0	0
HAMPTON	2,703,613	0	2,500	20,000	0	300	500	1,000
HORRY	2,415,666	90	1,000	3,000	0	1,810	2,200	1,200
JASPER	1,086,298	0	0	141,540	0	0	500	500
KERSHAW	2,051,516	62,500	0	343,385	0	2,290	6,000	1,000
LANCASTER	150,978	219,000	0	545	0	1,220	500	1,000
LAURENS	0	995,178	0	45	0	320	0	0
LEE	350,068	85,000	0	66,000	0	580	0	1,000
LEXINGTON	129,590	238,023	1,500	358,905	0	930	6,500	1,500
MARION	920,378	0	0	3,500	0	450	0	15,500
MARLBORO	1,903,766	0	0	69,500	0	80	0	500
MCCORMICK	0	584,978	0	0	0	0	0	0
NEWBERRY	0	2,196,522	0	0	0	2,195	1,500	4,625
OCONEE	0	438,228	0	0	2,000	1,330	500	1,500
ORANGEBURG	4,272,420	0	0	136,030	0	1,630	2,000	2,500
PICKENS	0	650,023	0	500	500	1,640	2,000	500
RICHLAND	328,545	258,478	500	439,545	0	1,870	1,500	8,500
SALUDA	250,000	889,153	0	13,000	500	100	500	0
SPARTANBURG	500	497,473	0	545	0	1,930	500	500
SUMTER	1,713,606	38,450	0	125,615	0	2,490	0	500
UNION	0	1,065,478	0	500	0	1,100	0	0
WILLIAMSBURG	3,557,961	7,000	47,000	14,500	0	1,850	3,000	4,500
YORK	150,990	47,500	0	1,000	0	450	0	1,500
MULTIPLE CO	2,268,000	888,500	6,000	1,407,725	250	2,030	4,200	6,220
OUT-OF-STATE	0	0	0	13,000	0	50	0	0
UNKNOWN	101,000	90	0	42,090	0	0	0	0
TOTAL	48,879,613	26,650,821	83,000	7,610,040	3,750	43,055	55,150	77,820

BLACK WALNUT	SYCAMORE	IMPROVED WHITE PINE	DEODAR	IMPROVED VIRGINIA PINE	EASTERN REDCEDAR	SAPPHIRE	GREEN- SPIRE	LEYLAND CYPRESS	MISC. SPECIES	TOTAL
0	0	1,000	0	2,080	2,000	0	0	0	200	818,795
2,000	0	3,000	80	12,020	6,000	72	90	342	10,300	10,891,917
1,000	0	500	0	4,000	2,500	0	0	324	0	2,190,352
1,500	0	7,000	40	5,500	8,500	990	90	2,916	450	369,104
0	0	0	40	500	2,500	0	0	90	0	1,977,213
5,000	0	1,000	0	0	3,000	0	0	0	150	2,701,898
0	0	0	0	3,000	8,500	0	72	648	100	761,048
3,000	0	1,500	40	6,120	6,000	0	0	18	550	3,538,646
0	0	1,000	160	2,040	5,500	18	18	72	150	663,042
0	1,000	500	40	32,080	18,000	18	54	2,412	765	1,190,809
500	0	2,500	0	1,820	2,000	0	0	90	450	194,953
0	0	500	0	1,160	0	0	0	900	100	785,748
0	0	2,500	40	3,060	10,400	0	0	270	200	1,718,276
0	0	0	0	3,120	5,000	0	0	342	1,200	2,273,368
0	0	1,000	40	2,560	1,500	18	0	324	200	1,991,057
0	0	4,000	80	4,440	6,000	180	72	864	350	1,215,147
0	0	0	0	3,080	2,500	0	0	432	150	1,050,678
0	0	0	120	6,120	2,500	540	396	1,440	1,665	2,081,993
500	0	1,000	40	5,040	4,500	396	414	468	850	1,566,586
0	0	0	0	500	1,100	0	0	144	100	2,551,200
5,010	0	1,100	0	4,000	9,000	0	0	486	1,000	1,070,059
0	0	0	0	4,080	500	0	0	0	50	3,284,140
525	150	19,000	40	4,040	7,125	252	72	1,224	960	393,181
500	0	2,500	0	9,080	3,500	36	198	270	250	1,579,542
0	0	500	0	80	3,500	0	0	216	50	2,732,259
1,000	1,000	1,500	440	9,700	6,200	126	126	1,098	500	2,446,656
0	0	0	0	2,500	500	0	0	72	100	1,232,010
500	8,000	1,000	120	10,540	3,000	216	90	864	13,100	2,504,121
500	500	2,500	360	5,500	3,500	198	18	108	50	386,477
0	0	5,500	400	2,000	1,500	108	144	360	100	1,005,655
0	0	0	80	1,660	0	0	0	108	150	504,646
500	1,000	7,100	280	30,030	18,000	1,368	252	2,700	850	799,028
1,000	0	2,500	200	2,000	2,500	180	180	180	0	948,568
0	0	0	0	1,500	2,000	0	0	0	150	1,977,496
0	0	0	0	0	0	0	0	0	0	584,978
500	0	6,500	40	4,580	100	0	0	1,116	1,870	2,219,548
2,000	0	11,450	40	4,250	5,700	0	0	954	44,900	512,852
2,500	1,000	4,450	40	16,880	21,000	198	252	612	600	4,462,112
2,500	0	15,000	120	27,820	5,500	396	216	918	850	708,483
500	0	4,600	200	4,560	10,000	216	54	2,880	930	1,062,878
0	500	1,500	840	2,320	1,500	486	378	1,674	100	1,162,551
2,500	0	19,000	40	2,120	6,500	72	126	2,916	8,550	543,272
250	0	4,500	40	5,220	8,500	90	36	972	550	1,900,819
0	0	500	0	1,000	1,000	0	0	36	0	1,069,614
1,500	1,000	500	0	4,280	4,000	0	0	756	150	3,647,997
1,000	0	12,000	200	9,560	4,500	234	54	3,816	1,400	234,204
2,050	3,870	17,500	0	4,500	6,520	0	0	18	1,700	4,619,083
0	5,500	500	0	0	0	0	0	144	0	19,194
0	0	0	0	400	0	0	0	18	500	144,098
38,335	23,520	168,200	4,200	272,440	233,645	6,408	3,402	36,612	97,340	84,287,351

## TREE SEEDLING DISTRIBUTION BY LANDOWNER CLASSIFICATION

### A. Seedlings Planted in the State by Land Ownership:

Land Ownership	Percent of Total	Number Trees Planted
Private Ownership	36	29,932,769
Christmas Tree Growers	1	253,411
Forest Industry ( Pulp & Paper)	47	39,314,406
Lumber	10	8,741,820
Forest Industry (Other Corp)	1	883,436
Schools		125,388
State Forest		421,200
Other State Land		290,940
Other Government Land		11,875
Federal Land	5	4,260,810
Associations/Clubs		51,296
<b>Total</b>	<b>100</b>	<b>84,287,351</b>

### B. Source of Seedlings Planted in the State

1. Nurseries in South Carolina	
S. C. Forestry Commission (Includes Greenhouse)	22,665,397
Champion International	7,492,342
International Paper Company	17,409,973
Westvaco	15,410,952
Weyerhaeuser	16,200,000
<b>Total</b>	<b>79,178,664</b>

2. Nurseries Outside South Carolina	
Georgia Forestry Commission	1,050
Federal Paper Board	884,137
Union Camp	842,000
International Forest Tree Seed Company	3,373,000
North Carolina Forest Service	8,500
<b>Total</b>	<b>5,108,687</b>

### C. State Nursery Seedlings Shipped

Out-of-State	19,194
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**Total Seedlings and Acres Planted in South Carolina  
1929-1993, By County**

COUNTY	SEEDLINGS PLANTED 1992-93	GRAND TOTAL PLANTED TO DATE 1929-93	ACRES PLANTED 1929 TO 6/30/93
ABBEVILLE	818795	6688456	73364
AIKEN	10891917	221614587	273104
ALLENDALE	2190352	89354296	113240
ANDERSON	369104	49598391	57970
BAMBERG	1977213	59043259	76260
BARNWELL	2701898	19603521	152860
BEAUFORT	761048	267918394	34668
BERKELEY	3538646	116873832	145634
CALHOUN	663042	46964199	61529
CHARLESTON	1190809	43831726	57395
CHEROKEE	194953	32415665	39061
CHESTER	785748	78547756	120297
CHESTERFIELD	1718267	140449263	166642
CLARENDON	2273368	62501037	76650
COLLETON	1991057	125344027	170457
DARLINGTON	1215147	36023196	45238
DILLON	1050678	28433430	32951
DORCHESTER	2081993	79657331	95762
EDGEFIELD	1566586	68246481	91195
FAIRFIELD	2551200	105156886	129716
FLORENCE	1070059	33328485	40961
GEORGETOWN	3284140	133083216	164463
GREENVILLE	393181	28901026	33551
GREENWOOD	1579542	81552241	90304
HAMPTON	2732259	101425540	128020
HORRY	2446656	75396802	87126
JASPER	1232010	93173415	108312
KERSHAW	2504121	182177809	213274
LANCASTER	386477	74283228	93359
LAURENS	1005655	95685857	181159
LEE	504646	34781248	43984
LEXINGTON	799028	62075148	76875
MARION	948568	34523890	42670
MARLBORO	1977496	53881797	66617
MCCORMICK	584978	47574620	62973
NEWBERRY	2219548	85264244	111569
OCONEE	512852	34480153	40695
ORANGEBURG	4462112	134163885	199014
PICKENS	708483	28182583	33101
RICHLAND	1062878	28807527	80074
SALUDA	1162551	47220846	65988
SPARTANBURG	543272	57576509	67098
SUMTER	1900819	65908156	76610
UNION	1069614	71130399	90001
WILLIAMSBURG	3647997	97787086	131975
YORK	234204	58016544	69143
MULTIPLE COUNTIES	4436571	61050857	109955
<b>TOTAL</b>	<b>84,287,351</b>	<b>3,671,226,629</b>	<b>4522864</b>

# SEEDLING DISTRIBUTION 1927-1993

YEAR	TOTAL STATE NURSERIES	TOTAL ALL SOURCES	YEAR	TOTAL STATE NURSERIES	TOTAL ALL SOURCES
1928-29	142000	142000	1960-61	145609075	158330575
1929-30	148000	148000	1961-62	71892420	83844470
1930-31	986000	986000	1962-63	56191241	64201541
1931-32	976000	976000	1963-64	51445597	62423597
1932-33	996000	996000	1964-65	49009893	60683493
1933-34	1031000	1031000	1965-66	42310685	56529185
1934-35	7529000	7529000	1966-67	48575190	69597590
1935-36	23000000	23000000	1967-68	39970136	58812136
1936-37	22000000	22000000	1968-69	29529285	51453285
1937-38	11192000	11192000	1969-70	31415430	49202630
1938-39	10854000	10854000	1970-71	31939880	54540880
1939-40	12244000	12244000	1971-72	23677925	41357225
1940-41	21165423	21165423	1972-73	30977800	45239100
1941-42	10275037	10275037	1973-74	28443000	42305500
1942-43	4742010	4742010	1974-75	40081500	55996500
1943-44	5662608	5662608	1975-76	40664387	59063387
1944-45	1962600	1962600	1976-77	39795375	59238275
1945-46	6402255	6402255	1977-78	45734500	64380200
1946-47	1962600	1962600	1978-79	43009533	65936933
1947-48	11356990	11356990	1979-80	46374919	76206619
1948-49	30338775	30338775	1980-81	53512622	86419513
1949-50	29501955	29501955	1981-82	55727828	87793028
1950-51	20615315	20615315	1982-83	47798858	86265299
1951-52	16619000	19619000	1983-84	50169612	100394312
1952-53	22035850	32246298	1984-85	51635770	107717581
1953-54	36210100	42852314	1985-86	65464810	124381360
1954-55	35373025	45182255	1986-87	73554964	157522970
1955-56	34413550	42931755	1987-88	78787967	164094827
1956-57	55753600	69658736	1988-89	55051595	153450416
1957-58	60846200	93369084	1989-90	38355557	128475489
1958-59	123985000	166351000	1990-91	29297000	102384439
1959-60	147146365	187516418	1991-92	31,983,779	94,710,582
			1992-93	22,665,397	84,287,351

TOTAL STATE NURSERIES \_\_\_\_\_ 2,358,119,788

TOTAL ALL SOURCES \_\_\_\_\_ 3,692,050,716

## SEED ORCHARDS

<b>CREECH SEED ORCHARD</b>	
COASTAL LOBLOLLY (DISEASE RESISTANT)	5
PIEDMONT LOBLOLLY (1ST GENERATION)	40
PIEDMONT LOBLOLLY (DISEASE RESISTANT)	5
SC SLASH (1ST GENERATION)	17
LONGLEAF (1ST GENERATION)	12
VIRGINIA PINE (1ST GENERATION)	3
COASTAL LOBLOLLY (2ND GENERATION)	10.2
PIEDMONT LOBLOLLY (2ND GENERATION)	13.4
<b>TOTAL</b>	<b>103.6</b>
<b>NIEDERHOF SEED ORCHARD</b>	
COASTAL LOBLOLLY (2ND GENERATION)	204
PIEDMONT LOBLOLLY (2ND GENERATION)	118
LONGLEAF PINE (1st GENERATION)	30
SC SLASH (1st GENERATION)	3
SAWTOOTH OAK (SEED PRODUCTION)	2
<b>TOTAL</b>	<b>357</b>
<b>COASTAL SEED ORCHARD</b>	
SYCAMORE	4
SWEETGUM	6
WILLOW OAK (Seed production)	1.3
SWAMP CHESTNUT OAK	1.2
GREEN ASH	3.3
RED MAPLE	1.3
SOUTHERN RED OAK	2.2
WHITE OAK	1.9
<b>TOTAL</b>	<b>21.2</b>
<b>PIEDMONT SEED ORCHARD</b>	
WHITE PINE (1.5 GENERATION)	12
NORTHERN RED OAK	2
VIRGINIA PINE (1st GENERATION)	3
<b>TOTAL</b>	<b>17</b>

**GRAND TOTAL ORCHARD/SEED PRODUCTION                      498.80**

Additional longleaf, swamp chestnut oak, willow oak, white oak, northern red oak, southern red oak, red maple and green ash seed production areas are being developed at Coastal, Piedmont and Niederhof facilities.

### Overview

Since 1963 the S. C. Forestry Commission has been a participating member in the N.C. State University Industry Cooperative Tree Improvement Program. Understanding that trees could be genetically improved, substantial gains have been and will continue to be possible. Success over time has and will continue to result in firm commitments to tree improvement programs. As tree improvement programs continue, new and greater challenges in accomplishing breeding and operational goals will become evident. Second generation loblolly pine seedlings will be available in 1994-95 to the general public.

## **Niederhof Seed Orchard**

Opening Niederhof Seed Orchard to controlled hunting continues the Forestry Commission's concept of multiple use management of state owned lands. Hunting rules, regulations and guidelines have been adopted and are being administered by the Forestry Commission.

The following schedule relates to all wildlife activities.

Species	Season	Hunt Days	Hours	Restrictions	Fees
Deer	18-Aug. 29-Dec.	Saturday	Dawn-9AM 3PM-Sunset	Still-Hunt	\$20.00
Quail	1-Jan. 26-Feb.	Tues/Thur	Dawn Sunset	Max 3 hunters Per Party	\$10.00
Turkey	16-Mar 27-Apr	Tues/Thur	Dawn Sunset	Stalking	\$10.00

## **PERMITS ISSUED AND REVENUE RECEIVED**

	Number of Participants	Number of Use Days	Number Harvest	Revenue
Deer	96	9	70	\$2,160
Quail	6	5	3	\$90
Turkey	31	13	4	\$260
Totals	133	27	77	\$2,510

(includes gratis permits issued)

Jasper County receives 25% of revenue generated from set aside land with allotment payments, timber, straw, seed and cone sales, wildlife activities and seed processing.



## **INSECT AND DISEASE SECTION**

The Insect and Disease Section, in cooperation with the State Division of Plant Industry and the U.S. Forest Service, maintains a program to detect, evaluate, and suppress forest pests. Through cooperative agreements, these agencies make their technical assistance and advice available to the Forestry Commission.

The current forest pest detection and reporting system involves the reporting by field foresters of forest pests that are causing abnormal losses, require control action, or which may present new problems. Aerial surveys are made periodically for specific pests to determine occurrence and the need for suppression action.

### **Major Insect Problems**

#### **Southern Pine Beetle:**

A southern pine beetle outbreak was declared for Cherokee, Union and York counties in August 1992. Aerial surveys showed 1,465 beetle spot infestations. These spots contained 651,390 trees with a volume of 36,973 cords and 18,271,490 board feet of pine timber. This timber had a green stumpage value of \$4,302.398. Some beetle activity was also recorded outside the three county infestation zone, primarily in the upper piedmont. Scattered activity was also occurring in the coastal plains. Hot weather at the end of the fiscal year was slowing beetle spread but not halting the outbreak. Additional aerial surveys were planned for early in FY 94.

### **Major Disease Problems**

#### **Oak Wilt:**

Oak wilt disease has been identified in Chesterfield, Kershaw, Lancaster, Lee, and Richland counties. It appears to be static and causing losses only to low value oaks. Since there is potential for loss of valuable trees, including urban trees, periodic surveys are made to evaluate the spread.

#### **Dutch Elm Disease:**

Dutch Elm disease has been confirmed in Aiken, Anderson, Cherokee, Chester, Chesterfield, Edgefield, Fairfield, Greenville, Greenwood, Kershaw, Lancaster, Laurens, Lexington, Marlboro, Newberry, Oconee, Pickens, Richland, Saluda, Spartanburg, and York counties. It is expected to gradually spread through the state because the primary agent of spread, the smaller European elm bark beetle, occurs statewide.

### **Mycorrhizal Inoculations:**

A project was continued at Creech Seed Orchard this year to inoculate containerized longleaf seedlings with the mycorrhizal fungus Pisolithus tinctorius (P.t.). 325,000 longleaf seedlings were inoculated with mycorrhizae.

### **Dogwood Anthracnose:**

In 1988 a new anthracnose disease of dogwood was noted for the first time in South Carolina. This disease is caused by the fungus Discula destructiva. Symptoms include foliage blighting, canker formation and progressive deterioration. Infected trees usually are killed by the fungus in 2-3 years. At this time infected trees have been found in Anderson, Greenville, Laurens, Oconee, Pickens, and Spartanburg counties. As part of a southwide effort, the Forestry Commission has established 19 permanent plots in the counties known to harbor infections of the fungus. The dogwoods in those plots will be monitored annually to determine the rate of spread of this potentially devastating disease.

### **Forest Health:**

The Forest Health Program is a new state/federal cooperative program designed to monitor long-term forest losses caused by insects, disease and other factors. The U.S. Forest Service and the EPA are the lead federal agencies in this program. The program uses loss data that is already collected, such as southern pine beetle loss assessments. Additionally, randomly selected plots are established in the forest for detailed monitoring.

The SCFC agreed to cooperate in a demonstration project to evaluate loblolly and shortleaf pine. This year I & D personnel examined twenty-seven of the plots in South Carolina. If the timber type fit the criterion for plots in the demonstration area, they were established as permanent monitoring plots. This consisted of locating the plot center on the ground and marking and mapping an access for monitoring crews. Landowner permission to use the plots was also obtained. Nine of the plots checked were of the loblolly/shortleaf pine type needed in this study. Landowner permission was obtained for 7 of these plots. Federal contract crews will monitor these plots this summer.

### **Miscellaneous Insect and Disease Checks:**

Commission foresters made approximately 1,060 field checks of insect and disease problems and made recommendations for prevention and control. Other inquiries were handled by telephone, mail, and personal contact.

### **Insect and Disease Laboratory:**

During Fiscal Year 92-93 the Insect and Disease Laboratory processed 97 samples. These were submitted for analysis by Commission employees and private individuals. Recommendations for control of various pests identified were given where needed.



## **FOREST FIRE PROTECTION SECTION**

The Forestry Commission is charged by state law with the responsibility for protecting all state and privately owned woodland from wildfire. At present there are 12,558,258 acres of woodland and adjoining non-forest lands under Forestry Commission protection. Approximately 10% of this total area is non-forest land. The U. S. Forest Service protects 576,518 acres of National Forest, and 336,746 acres of woodland are owned and protected by other federal agencies.

The South Carolina Forestry Commission has mutual aid agreements with all Federal Agencies managing Federal lands in South Carolina. The agreement provides for mutual aid in fire detection and suppression along federal land boundaries.

### **Southeastern States Forest Fire Compact Commission**

The 1954 General Assembly passed legislation enabling South Carolina to join with nine (9) other southeastern states to form a Forest Fire Compact Commission. Other states belonging to the commission are: Alabama, Georgia, Florida, Kentucky, North Carolina, Mississippi, West Virginia, Virginia, and Tennessee. Leadership of each local state Commission is composed of a Compact Administrator (the State Forester), and a four-member Advisory Committee. The Compact Administrator and Advisory Committee for South Carolina are: J. Hugh Ryan, State Forester; Representative Marion P. Carnell, Ware Shoals; Mr. Archer Smith, Eastover; Senator, (vacant); and Mr. Laverne Fenters, Garden City.

The thirty-eighth annual meeting of the Southeastern States Forest Fire Compact Commission (SSFFCC) was held on June 13, 1993 in Tulsa, Oklahoma.

### **Emergency Preparedness**

The South Carolina Forestry Commission maintains contact and cooperates closely with the South Carolina Emergency Preparedness Agency (EPD). The S.C. Forestry Commission is the primary agency responsible for providing a number of services before, during, and after most natural or man-made disasters. It is the primary agency responsible for coordinating Forest Fire Services and timber removal in the interest of public safety from private property during all emergencies or disasters. Support services are provided in the areas of warning operations, communications, State Emergency Operations Centers and Forward Emergency Operations Centers, urban and rural fire service, search and rescue operations, Disaster Assistance Centers operations, debris removal, and damage surveys.

The S.C. Forestry Commission participates in yearly training exercises with the Emergency Preparedness Division.



### **Wildland Fire Protection Partnership**

Organized in the summer of 1991, this organization consists of representatives from the Fire Service, Fire Marshals' Office, the U.S. Forest Service, the S.C. Forestry Commission and forest industry. It primarily seeks to address the growing problem of wildland-urban interface fires which require response from both the Fire Service and wildland firefighters.

The Partnership consists of five working groups: Training and Operations, Communication and Logistics, Administration, Fire Prevention, and Laws and Regulations.

During 1992-93, the Partnership developed mutual aid legislation which is expected to pass the legislature during the next session. In addition, the Forestry Commission produced a major exhibit for the partnership, a logo, a letterhead, and a wildland firefighter safety poster.

### **Rural and Fire Protection - Title IV**

The Rural Development Act of 1972, Title IV (Public Law 92-419), as amended, authorized the Secretary of Agriculture to develop a Rural Community Fire Protection Program. This program applies to rural communities throughout the country and is established to provide financial and technical assistance for organizing, training, and equipping local fire fighting forces in communities under 10,000 population. Qualifying fire departments have been able to apply for funds under this program on a 50/50 matching basis. Funds may be utilized for equipment such as fire hose, protective clothing, communications equipment, and breathing apparatus. Funding for 1992-93 fiscal year was \$59,116 and will provide assistance to 105 departments.

### **Federal Excess Personal Property**

Excess federal equipment, loaned to the Forestry Commission by the U.S. Forest Service, is provided to qualifying rural fire departments for conversion to useful pieces of fire fighting equipment. The department receiving this equipment agrees to paint, maintain, and insure it and to respond to calls from the Forestry Commission. All equipment is returned to the Forestry Commission when no longer needed by the department.

Since the Cooperative Rural Fire Program began in January of 1976, 435 vehicles, water tanks and miscellaneous equipment have been loaned to 264 rural fire departments throughout the state. At present 140 departments have in use about 220 pieces of excess equipment. During the fiscal year, 25 pieces of equipment were issued or transferred to qualifying fire departments.

The 3/4 ton 4x4 pickups are the principal type vehicle we are trying to acquire. These trucks are being converted to brush trucks.

### **Fire Weather & Smoke Management Forecast**

Regular fire weather and smoke management forecasts are provided daily to the Forestry Commission by the National Weather Service. This information is analyzed and then disseminated to other agencies and public users through the Forestry Commission's communications system. Special forecasts are also available upon request for areas with large fires and during periods of extreme fire danger.

### **Weather Stations**

A fire weather station is located in each district. The data from these stations is used to calculate the Fire Danger Rating, which is furnished daily to all fire management personnel. These weather stations also provide special information for the National Weather Service.

This past year, a statewide network of automated weather stations (AWS) was established to replace the aging manually operated stations. Since several state and federal land management agencies need fire weather stations, a cooperative group was assembled and costs were held down by not duplicating station locations. The S.C. Forestry Commission purchased two AWS's, the US Forest Service purchased four, the US Fish and Wildlife Service purchased two, and the National Park Service purchased one. These stations were installed at selected sites throughout the state and are accessible by computers with telephone modems.

### **Precipitation**

Precipitation in South Carolina during 92-93 averaged 54.93 inches as recorded by NOAA and the South Carolina State Climatology Office. This was 4.60 inches above the State's normal annual rainfall of 50.33 inches. Stations used to calculate rainfall were Columbia, Charleston, and Greer.

AVERAGE PRECIPITATION BY MONTHS			
Month	Rainfall Inches	*Normal Inches	Departure from Normal Inches
July-92	3.06	5.59	-2.53
Aug-92	8.23	5.24	+2.99
Sep-92	3.98	4.51	-0.53
Oct-92	5.12	2.90	+2.22
Nov-92	5.87	2.63	+3.24
Dec-92	3.28	3.51	-0.23
Jan-93	7.86	3.97	+3.89
Feb-93	3.31	3.92	-0.61
Mar-93	7.36	5.14	+2.22
Apr-93	2.42	3.51	-1.09
May-93	2.91	4.16	-1.25
Jun-93	1.53	5.25	-3.72
Total	54.93	50.33	+4.60

### FIVE-YEAR SUMMARY OF PRECIPITATION

Fiscal Year	Rainfall (inches)	Departure from Normal (inches)
1988-89	48.75	-1.66
1989-90	48.25	-2.16
1990-91	55.34	+4.93
1991-92	49.39	-1.02
1992-93	54.93	+4.60
Average	51.33	-0.94

### Readiness Plan

The Commission's Readiness Plan System considers the influence of weather and fuel conditions on fire behavior, the chance of a fire starting, and the capability of the fire control organization at any given time. Readiness plans give guidance in work planning and fire control activities, allowing the Commission to perform all of its many functions while at the same time meeting fire control responsibilities. Readiness Plans are on a scale of 1-7 with 1 being the lowest state of readiness and 7 the highest.

#### Readiness Days 1992-93

Number of Readiness 1 Days	82
Number of Readiness 2 Days	195
Number of Readiness 3 Days	74
Number of Readiness 4 Days	13
Number of Readiness 5 Days	1
Number of Readiness 6 Days	0
Number of Readiness 7 Days	0

### Smoke Management and Prescribed Fire

In the spring of 1980 Smoke Management Guidelines for Forestry Prescribed Burning Operations were adopted. This statewide program was developed by a committee of the S.C. Forestry Association in cooperation with the S.C. Forestry Commission.

In 1985, a memorandum of understanding with the S.C. Department of Health and Environmental Control expanded the S.C. Forestry Commission's responsibility for smoke management related to forestry, wildlife, and agricultural burning operations. The objective of the program is to minimize the impact of smoke from vegetative debris burning operations, thereby helping to retain the right to use prescribed fire.

The Forestry Commission offers training for Prescribed Fire Managers throughout the state. In fiscal year 1993, these courses were presented in Florence, Walterboro, and Columbia with a total of 95 attendees.

### **Legal Fires**

Legal fires are land management fires which are authorized by the landowner, started by him or his authorized agent and burn entirely upon his land.

Individual landowners reported 13653 fires that burned an estimated 514,767 acres for various purposes during 1992-93. Forestry Commission employees conducted 730 burnsite inspections this year.

**Summary of Legal Fires 1992-93**

District	Forest Management Understory		Site Prep		Wildlife Improvement		Agriculture		Total	
	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres
Camden	199	31816	68	4436	19	2085	197	2701	175	441
Florence	162	8219	75	3650	41	642	3022	72086	2557	7605
Kingstree	726	72033	90	4737	251	25639	1665	35011	2097	6967
Newberry	35	2287	152	8562	36	2489	93	1475	395	1427
Orangeburg	383	37714	467	5164	44	1595	2109	42337	42	2312
Spartanburg	14	1018	107	5645	4	651	0	0	1	1
Walterboro	783	63027	893	4263	401	46013	1617	29469	674	4233
Total	2302	216114	1852	36460	796	79114	8703	183079	13653	514767

### **Law Enforcement**

The Forestry Commission has 72 forest law enforcement officers. They are commissioned by the Forestry Commission under statute authority of the 1982 General Assembly. Forest law enforcement officers have statewide jurisdiction for the enforcement of forestry laws of the state and duly enacted regulations of the Forestry Commission. All forest law enforcement officers are given basic law enforcement training by the Criminal Justice Academy. Additional training in forest fire investigation is provided by the Forestry Commission. In-service training is given annually to keep officers up-to-date on changes that occur and to maintain



proficiency in law enforcement skills. All forest fire management personnel are trained in preliminary forest fire investigation. In carrying out its forest law enforcement responsibilities, the Forestry Commission works closely with other state and local law enforcement agencies.

### **Burning Precautions**

Enacted in 1969, the statewide burning Precautions Law requires that a representative of the Forestry Commission be notified before a fire is started in any woodlands, brushlands, grasslands, ditchbanks, or hedgerows or in any debris, leaves or other flammable material adjacent thereto. The law also requires that a person clear around the area to be burned, have equipment and personnel on hand to contain it and carefully supervise the burn. The State Forester may direct that fires covered under the Precautions Law not be started when deemed necessary in the interest of public safety.

### **Fire Towers**

Basic forest fire detection in the past has been accomplished by an interlocking network of forest fire lookout towers. These towers were strategically located so each tower's normal range of visibility overlapped with adjoining towers.

The Commission plans to convert from fixed detection (towers) to aerial detection on October 1, 1993. This, linked with a proposed Communications/Dispatch system, should improve detection of forest fires and communications with the public and fire fighters.

### **Aerial Detection**

Forestry Commission fixed wing aircraft are used to supplement tower detection, separate legal burning from wildfires, warn fire crews of danger, assist ground crews in suppression and for other fire control uses, as necessary.

During Fiscal Year 1993 the Commission operated nine (9) fixed wing aircraft obtained from federal excess property. These were flown 2007.7 hours. Contract aircraft were utilized for 832.0 hours during the same period. Total fixed wing detection aircraft use for the year was 2839.7 hours.

# **Burning Precautions Law Summary 1992-93**

County	Number Notification Received	Burn Site Inspection
Abbeville	1744	19
Aiken	12451	4
Allendale	928	7
Anderson	2054	0
Bamberg	1977	13
Barnwell	1876	29
Beaufort	2644	13
Berkeley	12428	11
Calhoun	1374	4
Charleston	5051	0
Cherokee	1311	3
Chester	1514	11
Chesterfield	6332	18
Clarendon	3454	23
Colleton	10508	19
Darlington	2076	39
Dillon	1110	29
Dorchester	8511	4
Edgefield	651	6
Fairfield	2117	44
Florence	5142	38
Georgetown	5918	14
Greenville	3749	0
Greenwood	2579	55
Hampton	3459	9
Horry	8241	44
Jasper	4635	2
Kershaw	5929	16
Lancaster	1130	0
Laurens	2025	38
Lee	2415	8
Lexington	17268	20
McCormick	392	14
Marion	1566	7
Marlboro	1092	32
Newberry	979	23
Oconee	2293	2
Orangeburg	3295	26
Pickens	1398	14
Richland	4402	0
Saluda	424	38
Spartanburg	3827	4
Sumter	5052	4
Union	694	5
Williamsburg	2281	21
York	5203	0
Total	175499	730

**SOUTH CAROLINA FORESTRY COMMISSION  
LAW ENFORCEMENT FIRE LAW VIOLATIONS SUMMARY  
FROM 7/1/92 THROUGH 6/30/93**

COUNTY	NONE	CARELESS & NEGLECTANCE	INTENTIONAL	WILLFUL & MALICIOUS	NOTIFICATION	BURNING BAN
ABBEVILLE	25	3	11	0	1	0
AIKEN	29	34	37	3	20	0
ALLENDALE	2	5	4	0	0	0
ANDERSON	15	2	4	1	0	0
BAMBERG	4	11	14	1	0	0
BARNWELL	3	10	19	0	1	1
BEAUFORT	8	5	34	2	4	0
BERKELEY	17	40	169	0	3	0
CALHOUN	15	3	7	0	2	0
CHEROKEE	13	29	6	7	0	0
CHESTER	16	5	14	0	0	0
CHESTERFIELD	55	21	38	0	8	0
CLARENDON	8	56	111	0	2	0
COLLETON	39	23	69	2	30	0
DARLINGTON	64	21	26	0	8	0
DILLON	38	15	15	0	9	0
DORCHESTER	10	13	53	0	6	0
EDGEFIELD	19	2	2	0	2	0
FAIRFIELD	37	19	5	2	1	0
FLORENCE	35	19	94	0	12	0
GEORGETOWN	10	22	45	0	3	0
GREENVILLE	10	4	5	0	6	0
GREENWOOD	29	24	15	3	17	0
HAMPTON	19	3	19	0	5	0
HORRY	29	30	91	0	24	0
JASPER	15	34	97	0	3	0
KERSHAW	30	31	57	0	1	0
LANCASTER	28	7	12	0	2	0
LAURENS	13	2	26	0	0	0
LEE	29	5	16	0	11	0
LEXINGTON	95	37	38	8	7	0
LOWER CHARLESTON	3	7	32	0	3	0
MANCHESTER SF	0	0	0	0	0	0
MARION	26	11	17	0	4	0
MARLBORO	25	21	55	0	9	0
MCCORMICK	17	9	2	0	0	0
NEWBERRY	38	0	14	0	0	0
OCONEE	17	0	0	0	1	0
ORANGEBURG	30	67	81	2	5	0
PICKENS	27	7	3	0	0	0
RICHLAND	14	12	39	0	0	0
SALUDA	19	2	0	1	2	0
SAND HILLS SF	0	0	0	0	0	0
SPARTANBURG	27	19	11	1	0	0
SUMTER	14	43	25	1	11	0
UNION	26	5	1	0	0	0
UPPER CHARLESTON	3	13	44	0	0	0
WILLIAMSBURG	12	68	156	12	4	0
YORK	42	50	14	5	19	0
STATE TOTAL	1099	869	1647	51	246	1

SOUTH CAROLINA FORESTRY COMMISSION  
LAW ENFORCEMENT PROSECUTIONS & CONVICTIONS BY VIOLATIONS  
July 1, 1992 through June 30, 1993

COUNTY	CARELESS & NEGLIGENCE		INTENTIONAL		WILLFUL & MALICIOUS		NOTIFICATION		BURNING		ST. FOREST REGULATION		OTHER	
	PROS.	CONV.	PROS.	CONV.	PROS.	CONV.	PROS.	CONV.	PROS.	CONV.	PROS.	CONV.	PROS.	CONV.
ABBEVILLE	0	0	0	0	0	0	1	1	0	0	0	0	0	0
AIKEN	2	1	0	0	0	0	2	1	2	1	0	0	0	0
ALLENDALE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANDERSON	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BAMBERG	0	0	0	0	0	0	0	1	0	0	0	0	0	0
BARNWELL	2	2	0	0	0	0	0	0	0	0	0	0	0	0
BEAUFORT	2	2	0	0	0	0	0	0	0	0	0	0	0	0
BERKELEY	3	3	0	0	0	0	0	0	0	0	0	0	0	0
CALHOUN	0	0	0	0	0	0	1	1	0	0	0	0	0	0
CHEROKEE	2	2	0	0	0	0	1	1	0	0	0	0	0	0
CHESTER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CHESTERFIELD	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CLARENDON	3	2	0	0	0	0	2	0	0	0	0	0	0	0
COLLETON	1	1	2	0	0	0	2	2	0	0	0	0	0	0
DARLINGTON	11	11	0	0	0	0	10	10	0	0	0	0	0	0
DILLON	0	0	0	0	0	0	2	1	0	0	0	0	0	0
DORCHESTER	2	2	0	0	0	0	1	1	0	0	0	0	0	0
EDGEFIELD	0	0	0	0	0	0	4	4	0	0	0	0	0	0
FAIRFIELD	1	0	0	0	0	0	0	0	0	0	0	0	0	0
FLORENCE	1	1	0	0	0	0	1	1	0	0	0	0	0	0
GEORGETOWN	3	2	0	0	0	0	6	6	1	1	0	0	0	0
GEORGETOWN	1	1	0	0	0	0	1	1	0	0	0	0	0	0
GREENVILLE	5	5	0	0	0	0	2	2	0	0	0	0	0	0
GREENWOOD	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HAMPTON	0	0	0	0	0	0	2	2	0	0	0	0	0	0
HORRY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HORRY	7	7	0	0	0	0	2	2	0	0	0	0	0	0
JASPER	1	1	0	0	0	0	4	3	0	0	0	0	0	0
KERSHAW	0	0	0	0	0	0	3	3	0	0	0	0	0	0
LANCASTER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LAURENS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LEE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LEXINGTON	1	1	0	0	0	0	0	0	0	0	0	0	0	0
LEXINGTON	15	15	0	0	0	0	0	0	0	0	0	0	0	0
LOWER CHARLESTON	0	0	0	0	0	0	1	1	0	0	0	0	0	0
MANCHESTER SF	0	0	0	0	0	0	3	3	0	0	0	0	0	0
MARION	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MARLBORO	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MARLBORO	0	0	1	1	0	0	3	3	0	0	0	0	0	0
MCCORMICK	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NEWBERRY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCONEE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ORANGEBURG	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ORANGEBURG	2	2	0	0	0	0	0	0	0	0	0	0	0	0
PICKENS	4	4	0	0	0	0	1	1	0	0	0	0	0	0
RICHLAND	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RICHLAND	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SALUDA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SAND HILLS SF	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SAND HILLS SF	1	0	0	0	0	0	0	0	0	0	0	0	0	0
SPARTANBURG	0	0	0	0	0	0	0	0	0	0	8	8	6	5
SUMTER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNION	0	0	0	0	0	0	3	3	0	0	0	0	0	0
UPPER CHARLESTON	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WILLIAMSBURG	0	0	0	0	0	0	2	2	0	0	0	0	0	0
WILLIAMSBURG	2	2	0	0	0	0	0	0	0	0	0	0	0	0
YORK	1	1	0	0	0	0	1	1	0	0	0	0	0	0
STATE TOTAL	73	71	3	1	0	0	59	51	3	2	8	8	6	5



### Summary of Detection Aircraft

Use - Hours 1991-92

Month	Camden District	Florence District	Kingstree District	Newberry District	Orangeburg District	Spartanburg District	Walterboro District	Piedmont Plane	Coastal Plane	Contract A/D	Total
Jul-92	25.5	0	48.9	38.1	37.4	8.9	47.0	18.6	0	0	224.4
Aug-92	15.7	0	10.5	17.1	6.0	4.3	7.6	6.6	0	11.9	79.7
Sep-92	12.6	0	19.0	9.3	4.9	3.0	4.4	0	0	0	53.2
Oct-92	18.6	13	22.8	7.7	8.3	3.2	10.7	0	0	0	77.7
Nov-92	12.3	0	14.4	0	12.0	3.1	10.9	0	0	0	52.7
Dec-92	9.1	0	6.0	9.4	16.3	0.5	16.5	0	14.2	0	72.0
Jan-93	23.9	5.8	10.9	8.7	18.1	0	13.9	0	11.9	53.1	146.3
Feb-93	45.4	26.9	0	28.0	50.4	14.2	35.1	0	28.5	181.8	410.3
Mar-93	39.8	25.4	46.7	27.3	60.1	3.1	48.1	30.5	8.9	255.3	545.2
Apr-93	43.8	37.0	24.8	45.9	53.0	36.1	48.3	0	15.1	204.6	508.6
May-93	19.5	55.1	25.7	27.8	21.5	12.1	69.9	0	19.5	125.3	376.4
Jun-93	27.7	54.3	17.6	55.2	13.9	21.9	43.3	0	59.2	0	293.2
Total											***
SCFC	297.7	207.1	247.3	274.5	301.9	110.4	355.8	55.7	157.3	832.0	2839.7
*** Includes three aircraft (flying 715.9 hours) for Hugo Area detection. ((FEMA Funded.))											

### Aerial Tanker Program

The primary purpose of air tankers is to assist ground crews in the initial attack of wildfires. The air tankers are used in areas of difficult terrain such as coastal swamps/bays and steep mountain slopes where the use of ground equipment is limited. Air tankers cannot replace ground crews but because of their capability to respond quickly wherever needed, they can keep a fire from spreading until ground crews can control the fire.

The Forestry Commission has used air tankers for retardant delivery on wildfires for the past 14 years. In these years, tankers were contracted for the time of peak fire occurrence in January, February, March, and April.

Two water scooping aerial tankers were used for the spring 93 fire season. Tankers were funded with FEMA funds and were used in the Hurricane Hugo damaged area. Both tankers were Super PBY aircraft with the ability to deliver 1500 gallons of water/retardant in one load. One tanker was stationed at Moncks Corner Airport from January 23 through April 7, 1993. The other was stationed at Sumter County Airport from February 13 through April 28, 1993. These two air tankers were capable of scooping water from nearby sources and adding foam retardant to the mix while in flight. The tankers flew 19.05 hours and dropped 50,000 gallons of retardant in 38 drops on 18 separate fires.

## South Carolina Forestry Commission Aerial Tanker Program Statistics.

Year	#Aircraft	Days Standby	Flight Hours	Cost of Program	Availability Costs/Day	Flight time Costs/Hours
80	3	119	6:20	\$55,632	\$310	\$490
81	2	94	53:11	\$100,894	\$545	\$590
82	2	83	15:56	\$72,423	\$585	\$630
83	2	90	3:55	\$67,733	\$624	\$697
84	2	93	5:16	\$74,042	\$636	\$639
85	2	134	105:10	\$181,000	\$590	\$670
86	2	96	9:26	\$60,351	\$549	\$571
87	2	90	10:52	\$70,856	\$522	\$538
88	2	84	31:44	\$78,439	\$570	\$660
89	2	90	4:06	\$72,000	\$585	\$595
90	2	165	83:18	\$701,410	\$3,233	\$1,850
91	1	75	32:51	\$325,964	\$3,437	\$2,075
	1	75	22:15	\$244,655	\$2770	\$1770
92	2	155	55:06	\$471,939	\$2,599	\$1,390
93	2(PBY)	150	19:03	\$416,330	\$2,599(Aver.)	\$1.390 (Aver.)

### Helicopter Delivery Program

The Forestry Commission Federal Excess Property Helicopter Program was discontinued In January 1993. Continuing to operate and maintain Federal Excess Property Helicopters in the fire program was not cost effective. In the foreseeable future helicopters will be requested through the Army Air National Guard, the Marine Corps Air Station near Beaufort or through the Southeastern States Forest Fire Compact Commission.

### Forest Fire Suppression

Forest fire occurrence and acreage losses were below average for the 1992-93 fire season. The greatest losses occurred during March and April.

The fiscal year totals were 3,852 fires burning 24,379 acres. Berkeley County experienced the greatest losses with 2,179 acres burned. No other county's losses exceeded 2,000 acres.

Incendiary fires accounted for forty-four (44) percent of all fires and forty-eight (48) percent of the total acreage burned. Debris burning was second with thirty-one (31) percent of all fires and thirty-three (33) percent of acreage losses.

The average sized fire was 6.3 acres with nineteen hundredths of one percent of the acreage protected being burned.

SOUTH CAROLINA FORESTRY COMMISSION  
FOREST AND NON-FOREST LAND FIRES BY COUNTY  
FISCAL YEAR 93

COUNTY	TOTAL AREA PROTECTED	FOREST LAND NUMBER OF FIRES	AREA BURNED	NON-FOREST LAND NUMBER OF FIRES	AREA BURNED	NUMBER OF FIRES	TOTAL ALL LAND AREA BURNED	% AREA BURNED	AVG. AC. PER FIRE
ABBEVILLE	219,465	25	89.1	15	20.5	40	109.6	.05	2.7
AIKEN	440,546	103	657.7	18	67.8	121	725.5	.16	6.0
ALLENDALE	170,016	9	19.8	2	1.1	11	20.9	.01	1.9
ANDERSON	205,182	20	44.2	2	9.3	22	53.5	.03	2.4
BAMBERG	157,809	16	51.1	14	74.9	30	126.0	.08	4.2
BARNWELL	132,906	20	97.3	14	10.4	34	107.7	.08	3.2
BEAUFORT	150,534	36	137.9	17	79.7	53	217.6	.14	4.1
BERKELEY	393,479	219	2,076.6	10	102.4	229	2,179.0	.55	9.5
CALHOUN	146,634	22	52.8	5	23.7	27	76.5	.05	2.8
CHEROKEE	165,015	32	77.6	23	61.6	55	139.2	.08	2.5
CHESTER	307,085	26	79.3	9	10.3	35	89.6	.03	2.6
CHESTERFIELD	376,724	102	1,419.3	20	31.6	122	1,450.9	.39	11.9
CLARENDON	223,028	140	562.1	37	178.1	177	740.2	.33	4.2
COLLETON	501,274	119	640.3	43	133.5	162	773.8	.15	4.8
DARLINGTON	197,151	105	1,126.3	6	153.2	111	1,279.5	.65	11.5
DILLON	158,476	69	1,077.3	5	80.7	74	1,158.0	.73	15.6
DORCHESTER	294,709	61	976.1	19	94.2	80	1,070.3	.36	13.4
EDGEFIELD	227,065	24	82.9	1	18.5	25	101.4	.04	4.1
FAIRFIELD	409,252	50	233.4	14	11.7	64	245.1	.06	3.8
FLORENCE	301,969	143	1,143.6	9	177.8	152	1,321.4	.44	8.7
GEORGETOWN	423,817	79	222.7	1	1.7	80	224.4	.05	2.8
GREENVILLE	311,394	22	55.6	3	21.1	25	76.7	.02	3.1
GREENWOOD	210,955	57	190.2	23	16.4	80	206.6	.10	2.6
HAMPTON	284,647	36	283.9	10	4.2	46	288.1	.10	6.3
HORRY	497,121	164	1,034.5	1	45.0	165	1,079.5	.22	6.5
JASPER	331,913	116	675.6	32	113.7	148	789.3	.24	5.3
KERSHAW	380,314	99	591.1	20	147.3	119	738.4	.19	6.2
LANCASTER	285,320	34	62.2	15	11.6	49	73.8	.03	1.5
LAURENS	315,095	30	147.5	11	51.0	41	198.5	.06	4.8
LEE	131,603	48	1,324.6	13	249.6	61	1,574.2	1.20	25.8
LEXINGTON	271,581	181	380.9	4	13.6	185	394.5	.15	2.1
LOWER CHARLE	173,668	36	161.2	8	52.6	44	213.8	.12	4.9
MANCHESTER S									
MARION	226,184	49	81.1	9	20.6	58	101.7	.04	1.8
MARLBORO	188,471	74	1,076.1	34	198.9	108	1,275.0	.68	11.8
MCCORMICK	166,791	18	61.0	10	3.0	28	64.0	.04	2.3
NEWBERRY	269,596	38	115.2	14	16.4	52	131.6	.05	2.5
OCONEE	224,876	15	45.2	3	1.2	18	46.4	.02	2.6
ORANGEBURG	402,276	154	1,128.9	31	250.7	185	1,379.6	.34	7.5
PICKENS	238,974	35	45.4	2	8.0	37	53.4	.02	1.4
RICHLAND	303,252	59	314.0	6	43.7	65	357.7	.12	5.5
SALUDA	185,142	15	48.4	9	14.2	24	62.6	.03	2.6
SAND HILLS S									
SPARTANBURG	278,233	30	94.0	28	69.0	58	163.0	.06	2.8
SUMTER	254,928	86	624.4	8	80.3	94	704.7	.28	7.5
UNION	218,161	7	140.5	25	27.5	32	168.0	.08	5.3
UPPER CHARLE	90,769	57	590.5	3	.9	60	581.4	.64	9.7
WILLIAMSBURG	428,121	246	1,212.3	4	47.1	250	1,259.4	.29	5.0
YORK	286,737	53	105.7	63	81.1	116	186.8	.07	1.6
TOTAL	2,558,258	3,179	21,447.4	673	2,931.4	3,852	24,378.8	.19	6.3

# South Carolina Forestry Commission FOREST LAND FIRES BY COUNTY AND CAUSE FISCAL YEAR 1993

COUNTY	LIGHTNING		CAMPFIRE		SMOKING		DEBRIS BURNING		INCENDIARY		EQUIPMENT U S E		RAILROAD		CHILDREN		MISC.		T O T A L	
	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES
ABBEVILLE	2	9.0					6	3.7	7	55.2	4	17.2	2	3.1	4	.9			25	89.1
AIKEN	8	89.8			1	3.0	40	360.0	29	45.4	5	9.0			10	22.5	10	128.0	103	657.7
ALLENDALE	1	1.5					4	6.5	3	11.7	1	.1							9	19.8
ANDERSON			1	4.0	1	1.0	6	6.7	4	13.0	3	4.0			5	15.5			20	44.2
BAMBERG							4	5.8	11	43.3	1	2.0							16	51.1
BARNWELL							9	21.9	11	75.4							1	3.0	20	97.3
BEAUFORT							9	34.6	25	70.3	1	30.0							36	137.9
BERKELEY			1	150.0			46	214.0	166	1694.7	3	10.8			3	7.1			219	2076.6
CALHOUN			1	.1			6	7.7	7	31.6	3	5.4	1	2.0	1	4.0	3	2.0	22	52.8
CHEROKEE					4	5.3	5	6.1	8	19.6	6	18.3	1	4.0	6	11.3	2	13.0	32	77.6
CHESTER					2	3.5	5	9.6	11	36.0	4	19.7			3	8.5	1	2.0	26	79.3
CHESTERFIELD	3	50.4	1	6.0	7	13.0	34	227.2	35	974.8	4	17.2	3	114.0	2	.6	13	16.1	102	1419.3
CLARENDON			1	2.0	2	6.0	49	135.4	80	393.8	5	8.8			1	15.0	2	1.1	140	562.1
COLLETON	7	81.5					36	151.9	63	291.1	5	9.4			2	.3	6	106.1	119	640.3
DARLINGTON	4	35.2	1	3.0	5	43.5	48	930.3	24	74.6	7	12.5			4	2.8	12	24.4	105	1126.3
DILLON	2	180.1			5	8.2	21	588.8	15	64.4	5	2.9	2	.4	1	1.0	18	231.5	69	1077.3
DORCHESTER			1	.1			14	441.3	45	534.6	1	.1							61	976.1
EDGEFIELD	5	32.9	1	1.0			9	24.7	1	2.0	3	2.1			4	20.1	1	.1	24	82.9
FAIRFIELD	3	29.0	2	2.5	6	6.7	13	26.5	5	3.6	11	7.6	4	151.5	3	4.0	3	2.0	50	233.4
FLORENCE	1	2.0					42	664.0	88	461.9	1	.5	3	7.0	4	5.2	4	3.0	143	1143.6
GEORGETOWN	1	.1					26	46.3	46	164.0	4	2.2	1	.1	1	10.0			79	222.7
GREENVILLE					2	4.0	9	22.5	4	5.2	2	1.2			2	7.0	3	15.7	22	55.6
GREENWOOD	4	52.0			2	5.1	21	57.4	8	7.6			6	45.6	7	8.1	9	14.4	57	190.2
HAMPTON							14	232.1	15	34.1	2	12.1	3	3.5	1	2.0	1	.1	36	283.9
HORRY	1	.4	1	125.0	3	45.5	52	447.4	90	398.4	6	4.7			5	4.6	6	8.5	164	1034.5
JASPER	2	1.1					24	113.8	84	555.7	3	2.4			2	2.1	1	.5	116	675.6
KERSHAW	1	5.0	1	1.0	2	1.2	21	162.5	52	279.4	6	36.0	3	75.0	5	6.3	8	24.7	99	591.1
LANCASTER					2	8.0	12	17.5	10	26.4	4	7.4			2	1.5	4	1.4	34	62.2
LAURENS	1	20.0			1	3.0	1	2.0	22	100.5	1	1.0	2	6.0			2	15.0	30	147.5
LEE	3	116.0			3	3.0	23	385.1	13	313.0	2	3.0					4	504.5	48	1324.6
LEXINGTON	7	11.4	1	.3	3	4.4	64	72.2	45	216.0	13	18.9			33	36.8	15	20.9	181	380.9
LOWER CHARLE							7	11.3	27	142.9							2	7.0	36	161.2
MANCHESTER S					1	.1	17	30.0	13	38.1	6	4.9			9	5.8	3	2.2	49	81.1
MARION							24	49.9	38	916.2	4	9.5			4	91.0	3	9.0	74	1076.1
MARLBORO	1	.5			4	12.3	5	36.5	2	1.0					1	1.0	1	.1	18	61.0
MCCORMICK			1	.5	2	1.5	9	21.5	9	42.5	5	3.8	1	12.0	4	7.3	2	1.5	38	115.2
NEWBERRY	6	25.1			1	.2	8	10.2	2	21.0					1	6.0	3	7.8	15	45.2
OCONEE							61	180.4	74	899.2	4	1.8	1	2.0	1	8.0	4	8.0	154	1128.9
ORANGEBURG	1	19.0	1	1.1	7	9.4	16	15.0	5	11.3	5	2.7	3	6.0	1	1.2	4	8.2	35	45.4
PICKENS	2	30.0	1	1.0	3	1.3	7	53.0	33	132.2	2	2.0	1	1.0	6	79.5	5	15.0	59	314.0
RICHLAND	2	37.0					6	3.2			5	3.1					2	5.1	15	48.4
SALUDA																				
SAND HILLS S					3	10.0	9	33.0	7	26.0	2	4.0	1	2.0	4	13.5	4	5.5	30	94.0
SPARTANBURG					3	138.0	48	250.8	21	114.8	1	.5			2	14.0	8	100.5	86	624.4
SUMTER	1	.1	2	5.7	3	13.5	1	2.0					1	50.0			2	75.0	7	140.5
UNION							13	86.1	43	494.3					1	.1		.1	57	580.5
UPPER CHARLE			1	.1			74	400.0	167	809.5	3	2.6			1	.1		.1	246	1212.3
WILLIAMSBURG	1	5.0			1	.8	22	18.5	6	20.4	2	5.0	2	5.0	8	12.5	11	38.5	53	105.7
YORK																				
TOTAL	70	834.1	19	303.4	79	351.5	1000	6626.9	1474	10666.7	155	306.4	45	499.8	152	437.0	185	1421.6	3179	21447.4



South Carolina Forestry Commission  
TOTAL ALL LAND FIRES BY COUNTY AND CAUSE FISCAL  
YEAR 1993

COUNTY	LIGHTNING		CAMPFIRE		SMOKING		DEBRIS BURNING		INCENDIARY		EQUIPMENT U S E		RAILROAD		CHILDREN		MISC.		T O T A L	
	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES
ABBEVILLE	2	10.0					11	15.4	10	57.4	10	22.3			5	1.4			40	109.6
AIKEN	9	92.8			1	3.0	48	382.5	33	66.4	9	20.2	2	3.1	10	22.5	11	138.1	121	725.5
ALLENDALE	1	1.5			1	.1	4	6.5	4	12.7	1	.1							11	20.9
ANDERSON			1	4.0	3	5.0	6	7.5	4	13.0	3	4.5			5	19.5			22	53.5
BAMBERG	1	.1					7	28.3	19	91.5	3	6.1							30	126.0
BARNWELL	1	.1					11	27.0	20	80.2					2	.4			34	107.7
BEAUFORT							14	44.5	37	130.1	1	40.0							53	217.6
BERKELEY			1	150.0			48	219.1	174	1792.0	3	10.8			3	7.1	1	3.0	229	2179.0
CALHOUN			1	.1			9	21.6	7	39.6	3	5.4			1	4.0	5	3.8	27	76.5
CHEROKEE					4	5.3	12	10.6	13	34.1	11	34.3	1	2.0	10	21.9	3	28.0	55	139.2
CHESTER					2	3.5	7	12.7	14	38.2	5	21.7	2	5.0	5	11.0	2	2.5	35	89.6
CHESTERFIELD	4	50.6	1	6.0	12	15.8	40	250.3	36	975.0	5	17.5	5	114.7	3	1.6	16	19.4	122	1450.9
CLARENDON			1	2.0	2	8.0	58	187.1	107	517.9	6	9.1			1	15.0	2	1.1	177	740.2
COLLETON	8	81.6					55	239.3	77	334.7	10	10.3			3	1.3	9	106.6	162	773.8
DARLINGTON	5	38.2	1	3.0	5	53.5	50	1046.8	26	84.6	7	12.5			5	3.3	12	37.6	111	1279.5
DILLON	2	180.1			8	12.7	22	640.5	15	64.6	5	3.3	2	.7	1	1.0	19	255.1	74	1158.0
DORCHESTER			1	.1			21	501.3	54	566.3	4	2.6							80	1070.3
EDGEFIELD	5	32.9	1	1.0			10	40.7	1	2.0	3	2.6			4	22.1	1	.1	25	101.4
FAIRFIELD	3	29.0	2	2.5	13	7.9	13	27.1	5	3.9	13	7.9	5	160.0	4	4.2	6	2.6	64	245.1
FLORENCE	1	2.0			1	10.0	44	731.3	94	562.4	1	.5	3	7.0	4	5.2	4	3.0	152	1321.4
GEORGETOWN	1	.1					27	46.5	46	165.5	4	2.2	1	.1	1	10.0			80	224.4
GREENVILLE					3	5.2	10	30.6	4	5.2	2	1.2			2	17.0	4	17.5	25	76.7
GREENWOOD	4	52.0			5	6.9	26	64.2	10	8.0	9	3.9	7	45.8	9	8.4	10	17.4	80	206.6
HAMPTON					1	1.5	17	233.7	19	34.8	3	12.2	4	3.8	1	2.0	1	.1	46	288.1
HORRY	1	.4	1	125.0	3	45.5	52	479.4	91	402.3	6	13.7			5	4.7	6	8.5	165	1079.5
JASPER	2	1.1			32	147.3	100	634.0	8	3.1					5	3.3	1	.5	148	789.3
KERSHAW	1	5.0	1	1.0	3	3.2	29	271.7	56	286.2	9	51.1	5	87.0	7	8.5	8	24.7	119	738.4
LANCASTER					6	11.1	15	23.5	11	26.9	11	9.4			2	1.5	4	1.4	49	73.8
LAURENS	2	21.0			2	3.5	5	47.0	26	104.0	1	1.0	2	6.0			3	16.0	41	198.5
LEE	3	116.0			3	6.0	28	539.6	15	333.5	3	23.2			9	555.9			61	1574.2
LEXINGTON	7	11.4	1	.3	3	4.4	66	82.7	45	216.0	13	18.9			33	36.8	17	24.0	185	394.5
LOWER CHARLE					10	16.3	31	190.4									3	7.1	44	213.8
MANCHESTER S																				
MARION					1	.1	17	30.0	17	50.1	6	4.9	2	.2	11	7.2	4	9.2	58	101.7
MARLBORO	1	.5			1	.1	34	136.2	54	985.5	5	29.5	1	.5	5	106.5	7	16.2	108	1275.0
MCCORMICK			1	.5	4	12.4	7	38.6	2	1.0			6	9.8	2	1.1	6	.6	28	64.0
NEWBERRY	7	33.4			2	1.5	12	24.2	14	43.4	10	8.3	1	12.0	4	7.3	2	1.5	52	131.6
OCONEE					1	.2	9	11.2	2	21.0					1	6.0	5	8.0	18	46.4
ORANGEBURG	1	20.0	1	1.1	12	43.3	69	324.3	85	959.5	10	11.1	1	4.0	1	8.0	5	8.3	185	1379.6
PICKENS			1	1.0			18	17.0	5	13.3	5	2.7	3	7.0	1	1.2	4	11.2	37	53.4
RICHLAND	2	30.0			3	1.3	8	53.2	37	165.7	3	7.0	1	1.0	6	84.5	5	15.0	65	357.7
SALUDA	4	37.2			8	9.3					8	10.8					4	5.3	24	62.6
SAND HILLS S																				
SPARTANBURG	1	3.0	1	4.0	5	19.0	16	42.5	12	36.0	7	26.0	2	3.0	5	19.0	9	10.5	58	163.0
SUMTER	1	.1	2	6.7	3	138.0	53	305.9	22	118.0	1	.5			3	23.0	9	112.5	94	704.7
UNION					7	23.0	17	14.0					1	50.0			7	81.0	32	168.0
UPPER CHARLE			1	.1			14	86.4	45	494.9							1	.1	60	581.4
WILLIAMSBURG			2	2.0			76	403.1	169	853.5	3	2.6					1	.1	250	1259.4
YORK	1	5.0			11	13.0	41	36.2	10	24.2	3	29.0	3	9.5	13	16.0	32	51.9	116	186.8
T O T A L	81	855.1	22	310.4	131	464.0	1206	7954.7	1678	11639.5	233	504.0	60	532.2	183	513.5	258	1605.4	3852	24378.8

South Carolina Forestry Commission  
FOREST LAND FIRES BY COUNTY AND CLASS FISCAL YEAR  
1993

	CLASS A		CLASS B		CLASS C		CLASS D		CLASS E		CLASS F		CLASS G		TOTAL	
	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES
ABBEVILLE	12	1.6	9	25.5	4	62.0									25	89.1
AIKEN	11	1.4	85	199.3	6	232.0	1	225.0							103	657.7
ALLENDALE	3	.4	5	9.4	1	10.0									9	19.8
ANDERSON	1	.2	19	44.0											20	44.2
BAMBERG	6	.8	8	15.3	2	35.0									16	51.1
BARNWELL	7	1.2	10	15.0	3	81.1									20	97.3
BEAUFORT	3	.3	30	82.6	3	55.0									36	137.9
BERKELEY	14	1.6	150	385.0	52	1290.0	3	400.0							219	2076.6
CALHOUN	7	1.1	13	29.7	2	22.0									22	52.8
CHEROKEE	2	.3	29	65.3	1	12.0									32	77.6
CHESTER	3	.5	22	61.8	1	17.0									26	79.3
CHESTERFIELD	36	4.8	55	93.5	10	371.0			1	950.0					102	1419.3
CLARENDON	26	3.1	94	244.0	20	315.0									140	562.1
COLLETON	28	3.4	76	137.9	14	399.0	1	100.0							119	640.3
DARLINGTON	12	1.9	80	187.4	12	307.0			1	630.0					105	1126.3
DILLON	21	3.1	37	74.4	9	328.8	1	180.0	1	491.0					69	1077.3
DORCHESTER	5	.8	43	123.3	11	170.0			2	682.0					61	976.1
EDGEFIELD	4	.5	18	55.4	2	27.0									24	82.9
FAIRFIELD	12	1.8	33	45.6	4	86.0	1	100.0							50	233.4
FLORENCE	29	4.2	95	218.9	17	416.5	1	100.0	1	404.0					143	1143.6
GEORGETOWN	15	1.7	57	128.0	7	93.0									79	222.7
GREENVILLE	3	.6	18	40.0	1	15.0									22	55.6
GREENWOOD	7	1.1	47	91.1	3	98.0									57	190.2
HAMPTON	6	.6	24	56.3	6	227.0									36	283.9
HORRY	26	3.5	117	228.0	19	472.0	2	331.0							164	1034.5
JASPER	22	2.8	77	200.8	17	472.0									116	675.6
KERSHAW	15	2.2	67	133.9	16	355.0	1	100.0							99	591.1
LANCASTER	12	2.3	21	44.9	1	15.0									34	62.2
LAURENS			24	50.5	6	97.0									30	147.5
LEE	1	.1	34	85.5	9	314.0	3	425.0	1	500.0					48	1324.6
LEXINGTON	72	9.6	99	150.5	10	220.8									181	380.9
LOWER CHARLE	5	.7	24	65.5	7	95.0									36	161.2
MANCHESTER S																
MARION	17	2.5	29	43.6	3	35.0									49	81.1
MARLBORO	10	1.1	55	125.0	5	153.0	3	397.0	1	400.0					74	1076.1
MCCORMICK	4	.5	11	16.5	3	44.0									18	61.0
NEWBERRY	5	.7	29	47.5	4	67.0									38	115.2
OCONEE	2	.3	12	29.9	1	15.0									15	45.2
ORANGEBURG	14	1.8	126	231.1	13	246.0			1	650.0					154	1128.9
PICKENS	10	1.2	24	34.2	1	10.0									35	45.4
RICHLAND	3	.5	47	138.5	9	175.0									59	314.0
SALUDA	5	.6	9	12.8	1	35.0									15	48.4
SAND HILLS S																
SPARTANBURG			28	72.0	2	22.0									30	94.0
SUMTER	8	1.1	62	189.3	15	309.0	1	125.0							86	624.4
UNION			3	3.5	4	137.0									7	140.5
UPPER CHARLE	6	.7	35	94.3	15	322.5	1	163.0							57	580.5
WILLIAMSBURG	21	2.2	194	524.1	31	686.0									246	1212.3
YORK	10	1.8	41	67.9	2	36.0									53	105.7
T O T A L	541	73.2	2225	5018.5	385	9002.7	19	2646.0	9	4707.0					3179	21447.4

CLASS A <=.25; CLASS B .26-9.9; CLASS C 10-99; CLASS D 100-299; CLASS E 300-999; CLASS F 1000-4999; CLASS G > 5000

South Carolina Forestry Commission  
TOTAL ALL LAND FIRES BY COUNTY AND CLASS FISCAL  
YEAR 1993

	CLASS A		CLASS B		CLASS C		CLASS D		CLASS E		CLASS F		CLASS G		TOTAL	
	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES
ABBEVILLE	18	2.3	17	31.3	5	76.0									40	109.6
AIKEN	15	1.8	99	256.7	6	242.0	1	225.0							121	725.5
ALLENDALE	4	.5	6	10.4	1	10.0									11	20.9
ANDERSON			22	53.5											22	53.5
BAMBERG	12	1.7	13	32.3	5	92.0									30	126.0
BARNWELL	14	1.8	17	24.8	3	81.1									34	107.7
BEAUFORT	3	.3	46	140.3	4	77.0									53	217.6
BERKELEY	15	1.7	155	386.3	56	1391.0	3	400.0							229	2179.0
CALHOUN	6	.9	19	45.6	2	30.0									27	76.5
CHEROKEE	7	1.2	46	111.0	2	27.0									55	139.2
CHESTER	5	.8	29	71.8	1	17.0									35	89.6
CHESTERFIELD	40	5.6	70	114.3	11	381.0			1	950.0					122	1450.9
CLARENDON	49	5.5	103	316.7	25	418.0									177	740.2
COLLETON	49	5.8	95	169.0	17	499.0	1	100.0							162	773.8
DARLINGTON	12	1.9	85	226.6	13	321.0			1	730.0					111	1279.5
DILLON	26	3.9	37	88.1	8	238.0	2	287.0	1	541.0					74	1158.0
DORCHESTER	6	1.0	58	142.3	14	205.0			2	722.0					80	1070.3
EDGEFIELD	4	.5	19	73.9	2	27.0									25	101.4
FAIRFIELD	22	3.2	37	48.9	4	90.0	1	103.0							64	245.1
FLORENCE	30	4.4	98	216.5	22	576.5	1	120.0	1	404.0					152	1321.4
GEORGETOWN	16	1.8	57	129.6	7	93.0									80	224.4
GREENVILLE	5	.9	17	37.8	3	38.0									25	76.7
GREENWOOD	19	2.9	58	105.7	3	98.0									80	206.6
HAMPTON	12	1.5	28	59.6	6	227.0									46	288.1
HORRY	25	3.3	118	257.2	20	488.0	2	331.0							165	1079.5
JASPER	43	5.3	87	234.9	17	449.1	1	100.0							148	789.3
KERSHAW	19	3.0	83	170.4	16	365.0	1	200.0							119	738.4
LANCASTER	19	3.4	29	55.4	1	15.0									49	73.8
LAURENS			34	58.5	7	140.0									41	198.5
LEE	4	.7	36	84.5	17	514.0	3	475.0	1	500.0					61	1574.2
LEXINGTON	74	9.8	101	153.9	10	230.8									185	394.5
LOWER CHARLE	6	.8	28	83.0	10	130.0									44	213.8
MANCHESTER S																
MARION	19	2.7	36	64.0	3	35.0									58	101.7
MARLBORO	17	1.9	78	160.1	8	181.0	4	512.0	1	420.0					108	1275.0
MCCORMICK	12	1.2	13	18.8	3	44.0									28	64.0
NEWBERRY	12	1.9	35	52.7	5	77.0									52	131.6
OCONEE	4	.5	13	30.9	1	15.0									18	46.4
ORANGEBURG	22	3.2	145	294.4	16	302.0	1	130.0	1	650.0					185	1379.6
PICKENS	10	1.2	26	40.2	1	12.0									37	53.4
RICHLAND	4	.7	50	148.0	11	209.0									65	357.7
SALUDA	11	1.3	12	26.3	1	35.0									24	62.6
SAND HILLS S																
SPARTANBURG	3	.6	53	137.4	2	25.0									58	163.0
SUMTER	10	1.4	64	202.3	19	376.0	1	125.0							94	704.7
UNION			28	31.0	4	137.0									32	168.0
UPPER CHARLE	7	.8	37	95.1	15	322.5	1	163.0							60	581.4
WILLIAMSBURG	21	2.2	195	514.2	34	743.0									250	1259.4
YORK	30	5.2	83	123.6	3	58.0									116	186.8
T O T A L	761	103.0	2615	5929.8	444	10158.0	23	3271.0	9	4917.0					3852	24378.8

CLASS A <=.25; CLASS B .26-9.9; CLASS C 10-99; CLASS D 100-299; CLASS E 300-999; CLASS F 1000-4999; CLASS G > 5000

# South Carolina Forestry Commission

## FOREST LAND FIRES BY COUNTY AND MONTH FISCAL YEAR

### 1993

	JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		TOTAL	
	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES
ABBEVILLE	4	6.8	2	.6							1	.1	3	28.1	3	23.5	3	16.3	3	4.3			6	9.4	25	89.1
AIKEN	8	12.2	9	64.7	2	2.6	3	6.5	4	13.0	1	1.0	6	10.6	6	42.2	14	288.6	13	38.0	14	100.1	23	78.2	103	657.7
ALLENDALE	1	.2									1	.1					2	11.5	1	1.0	1	5.0	3	2.0	9	19.8
ANDERSON	1	4.0	6	14.0			1	1.0					1	2.0			3	10.0					8	13.2	20	44.2
BAMBERG	1	.1					1	.1					1	5.0	1	20.0	6	22.2			1	.3	5	3.4	16	51.1
BARNWELL			2	1.2			3	1.9							2	.2	5	56.5	5	36.4	2	.9	1	.2	20	97.3
BEAUFORT	2	11.0							2	2.1	1	2.0			13	40.1	7	14.6	3	32.0	6	17.1	2	19.0	36	137.9
BERKELEY	3	26.1					2	2.1	7	163.5	7	37.7	17	166.3	19	87.5	75	845.7	52	564.8	20	111.8	17	71.1	219	2076.6
CALHOUN	1	4.5	1	1.0					5	21.2			2	10.4	4	4.4	6	8.3			1	.7	2	2.3	22	52.8
CHEROKEE	9	11.5					1	5.0			1	.5	2	3.0	3	3.6	3	10.0	6	32.0	1	.5	6	11.5	32	77.6
CHESTER	6	7.8	2	6.0	1	7.0	1	.2							1	.5	6	15.5	5	24.3	2	10.0	2	8.0	26	79.3
CHESTERFIELD	13	73.9	2	1.2	2	4.4	5	5.4	1	4.0	16	7.0	6	1.2	14	54.2	13	1056.2	17	94.7	7	64.9	6	52.2	102	1419.3
CLARENDON	7	21.5	3	4.1			1	1.0	5	1.4	8	20.4	6	16.1	17	79.1	26	165.9	28	100.5	11	37.5	28	114.6	140	562.1
COLLETON	6	108.0	1	.5			1	1.0	3	2.3	6	2.6	11	29.9	19	102.3	11	147.1	25	127.9	15	22.8	21	95.9	119	640.3
DARLINGTON	16	72.6	6	5.2	1	.1	5	5.4	1	5.0	2	3.5	3	2.6	7	35.5	18	825.2	8	19.7	6	10.0	32	141.5	105	1126.3
DILLON	10	173.9	6	183.4	1	.2	4	2.5	1	1.0	1	1.0	2	.7	7	9.2	12	605.4	2	.5	6	19.1	17	80.4	69	1077.3
DORCHESTER	1	.3					1	.1					5	18.0	11	71.1	16	396.8	14	408.9	6	14.5	7	66.0	61	976.1
EDGEFIELD	1	5.0	5	35.0	1	.1	1	.2					1	2.0	3	5.1	2	3.5	2	13.5	2	6.5	6	12.1	24	82.9
FAIRFIELD	7	15.7	3	3.5			1	1.5					5	6.3	5	3.4	6	16.2	9	7.4	6	6.3	8	28.0	50	233.4
FLORENCE	7	58.0	5	8.0	2	.2	1	1.0	1	1.0	5	7.6	8	25.3	16	144.1	33	734.2	19	43.1	19	59.0	27	61.6	143	1143.6
GEORGETOWN	1	3.0			1	.1	1	2.0			4	7.1	6	5.4	14	38.6	23	86.8	10	40.9	9	15.9	10	22.9	79	222.7
GREENVILLE	3	2.5					1	.2			1	.2	2	4.0	2	15.2	6	14.0	5	15.5	1	2.0	1	2.0	22	55.6
GREENWOOD	6	45.7	6	6.1	2	1.1	4	13.0			3	9.3	4	9.0	2	1.0	8	17.3	7	4.1	3	6.2	12	77.4	57	190.2
HAMPTON	1	.1							1	.1			2	4.5	4	80.3	10	146.7	6	18.2	2	3.5	10	30.5	36	283.9
HORRY	4	3.1	1	.4			3	4.1	7	9.6	3	6.9	8	18.2	31	155.6	36	227.9	28	70.2	16	120.6	27	417.9	164	1034.5
JASPER	2	9.0	1	.2	1	.1	3	6.1		.5	2	.3	6	12.3	19	102.1	32	347.8	23	104.2	12	73.8	14	24.7	116	675.6
KERSHAW	14	96.0	9	83.1	6	8.1	3	15.0	3	7.1	2	3.2	4	11.3	3	11.0	9	142.5	13	52.0	11	119.8	22	42.0	99	591.1
LANCASTER	5	20.7	3	4.1			2	.7							4	12.0	1	2.0	2	3.5	1	1.0	16	18.2	34	62.2
LAURENS	2	2.5													3	19.0	8	43.0	7	30.5	3	41.5	7	11.0	30	147.5
LEE	6	42.0			2	6.0							3	6.0	1	3.0	7	192.5	12	755.0	2	9.0	15	311.1	48	1324.6
LEXINGTON	21	20.4	8	4.2	3	.9	3	2.7	6	4.0	5	2.4	16	51.1	17	34.8	38	50.1	37	129.7	13	20.7	14	59.9	181	380.9
LOWER CHARLE											5	9.6	3	10.7	6	65.0	12	38.2	4	17.5	2	15.5	4	4.7	36	161.2
MANCHESTER S																										
MARION	2	.6	1	.2	1	.1							2	.3	3	2.2	5	7.6	3	15.1	7	24.6	25	30.4	49	81.1
MARLBORO	9	12.4	7	17.4	3	2.9	5	13.5			1	.1	5	7.8	7	15.7	14	575.4	12	340.5	1	.1	10	90.3	74	1076.1
MCCORMICK	3	3.1	3	2.0	1	6.0					1	.1			1	.1	4	20.2			3	18.5	2	11.0	18	61.0
NEWBERRY	3	13.0	4	6.0	1	.5	2	6.0	1	.5			3	2.8			4	53.0	8	7.4	5	7.5	7	18.5	38	115.2
OCONEE			2	.4			1	3.0					1	.3	1	1.5	2	7.0	5	27.5	2	1.5	1	4.0	15	45.2
ORANGEBURG	5	21.3			2	.8	4	8.2	4	6.1	3	6.2	9	18.1	21	37.6	41	862.8	17	49.5	19	33.0	29	85.3	154	1128.9
PICKENS					1	4.0					1	3.0	3	6.1	6	13.2	11	13.4	9	4.2	2	.2	2	1.3	35	45.4
RICHLAND	7	104.5	3	5.0	1	4.0	1	5.0	1	2.0	2	4.0			7	30.2	17	75.1	11	50.0	2	5.2	7	29.0	59	314.0
SALUDA	4	40.6	1	.2	1	.1									3	3.0	3	2.1	1	.1			2	2.3	15	48.4
SAND HILLS S																										
SPARTANBURG	4	4.0	1	4.0			2	2.0	1	1.0			1	5.0	5	34.0	4	6.0	12	38.0					30	94.0
SUMTER	6	56.9	1	.1			1	3.0	1	3.0	4	34.0	2	2.1	12	61.3	19	273.2	12	64.7	6	30.6	22	95.5	86	624.4
UNION			1	.5													2	62.0	2	3.0			2	75.0	7	140.5
UPPER CHARLE			1	1.0					1	1.0	2	7.0	4	6.1	20	252.3	15	89.1	7	45.0	4	169.0	3	10.0	57	580.5
WILLIAMSBURG	7	35.5	1	2.0			7	6.5	3	2.1	10	44.3	13	21.7	32	199.6	55	315.1	66	379.2	20	51.0	32	155.3	246	1212.3
YORK	13	8.4	4	3.4			1	.2	2	.5	4	2.6	7	4.2	7	5.6	4	17.0	8	29.8	2	8.0	1	26.0	53	105.7
TOTAL	232	1158.4	111	468.7	36	49.3	75	119.6	63	252.5	103	223.8	183	534.5	382	1919.9	654	9073.9	542	3854.3	274	1265.7	524	2526.8	3179	21447.4



South Carolina Forestry Commission  
TOTAL ALL LAND FIRES BY COUNTY AND MONTH FISCAL  
YEAR 1993

	JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		TOTAL	
	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES
ABBEVILLE	4	16.6	3	.9	1	.1	2	1.2			1	.1	6	28.8	4	24.5	4	19.4	4	5.4	1	.5	10	12.1	40	109.6
AIKEN	9	12.3	11	74.7	2	2.6	4	6.6	4	13.0	2	6.0	7	23.6	12	55.2	17	305.2	13	38.0	16	104.1	24	84.2	121	725.5
ALLENDALE	1	.2									2	1.1					2	11.5	1	1.0	1	5.0	4	2.1	11	20.9
ANDERSON	1	4.0	6	14.0			1	1.0					1	2.0	2	4.0			3	13.0			8	15.5	22	53.5
BAMBERG	1	.1	1	.1			4	.5					2	5.5	3	20.4	7	37.2	2	7.5	2	.4	8	54.3	30	126.0
BARNWELL			3	1.3	2	3.1	6	2.7	1	3.0	2	.9	2	2.1	2	.2	5	56.5	5	36.4	2	.9	4	.6	34	107.7
BEAUFORT	2	11.0					1	1.0	2	2.1	4	15.0	1	3.0	15	55.9	14	40.5	4	43.0	8	27.1	2	19.0	53	217.6
BERKELEY	4	26.2					3	5.0	7	168.0	9	42.9	20	169.4	21	112.0	75	886.2	53	578.9	20	119.3	17	71.1	229	2179.0
CALHOUN	1	4.5	2	2.5			1	.4	5	29.2			2	10.4	4	6.3	8	19.2			2	1.5	2	2.5	27	76.5
CHEROKEE	14	12.8	1	.2	1	.2	1	5.0			2	1.5	8	28.0	7	20.7	4	18.0	6	32.0	1	2.0	10	18.8	55	139.2
CHESTER	10	11.1	2	6.0	1	7.0	1	.2	1	1.0	2	1.0			1	.5	6	15.5	5	24.3	2	10.0	4	13.0	35	89.6
CHESTERFIELD	17	76.7	4	3.4	3	4.9	5	5.4	2	7.0	17	8.7	7	1.3	14	56.4	18	1070.6	17	94.7	9	65.6	9	56.2	122	1450.9
CLARENDON	10	23.8	3	4.1			9	1.8	7	1.6	12	53.2	7	16.7	24	104.9	35	240.3	29	135.6	13	40.6	28	117.6	177	740.2
COLLETON	6	108.0	1	.5			3	1.4	3	2.3	10	6.9	18	38.9	23	135.6	19	155.6	36	194.4	18	31.5	25	98.7	162	773.8
DARLINGTON	16	78.8	7	8.2	1	.1	5	5.4	2	10.0	3	4.0	3	2.6	7	50.0	19	942.2	8	19.7	8	14.5	32	144.0	111	1279.5
DILLON	10	173.9	6	183.4	1	.2	4	2.5	1	1.0	1	1.0	4	1.0	9	15.7	12	677.3	2	.8	6	19.1	18	82.1	74	1158.0
DORCHESTER	1	.3					1	.5	2	.7			6	19.0	15	100.1	19	402.8	17	457.4	10	17.5	9	72.0	80	1070.3
EDGEFIELD	1	5.0	5	35.0	1	.1	1	.1					1	4.0	3	7.1	2	5.5	2	13.5	2	14.0	7	17.1	25	101.4
FAIRFIELD	9	16.0	3	3.5			2	.4					6	6.5	7	3.7	9	170.8	11	9.4	8	6.7	9	28.1	64	245.1
FLORENCE	7	58.0	5	8.0	2	.2	1	1.5	1	1.0	6	12.6	9	37.9	18	155.1	37	842.2	19	44.1	19	59.0	28	101.8	152	1321.4
GEORGETOWN	1	3.0			1	.1	1	2.0			5	7.2	6	5.4	14	39.2	23	87.8	10	40.9	9	15.9	10	22.9	80	224.4
GREENVILLE	3	4.0	2	.5			1	.2			1	.2	2	5.0	2	15.2	6	32.0	5	15.5	1	2.0	2	2.1	25	76.7
GREENWOOD	6	45.7	8	10.1	2	1.1	4	13.0			4	10.3	5	9.1	8	2.5	8	17.3	11	5.0	3	6.2	21	86.3	80	206.6
HAMPTON	1	.1					1	.1	2	.2			2	4.5	7	83.3	13	147.3	7	18.3	3	3.8	10	30.5	46	288.1
HORRY	4	3.1	1	.4			4	4.6	7	11.6	3	6.9	8	21.2	31	161.9	36	245.9	28	71.4	16	120.6	27	431.9	165	1079.5
JASPER	3	9.1	2	.3	1	.1	3	.6	2	.6	6	.9	10	14.8	25	105.1	35	438.8	31	113.5	16	78.3	14	27.2	148	789.3
KERSHAW	18	101.4	10	83.4	6	8.1	4	16.5	3	7.1	4	6.2	5	14.8	3	11.0	14	261.5	15	53.5	13	131.8	24	43.1	119	738.4
LANCASTER	7	22.7	3	4.1			4	2.2			1	1.0			4	12.0	2	2.5	3	4.0	2	6.0	23	19.3	49	73.8
LAURENS	2	2.5	1	1.0									3	19.0	15	47.0	7	31.5	4	42.5	9	55.0	41	198.5		
LEE	8	60.5			2	6.0					4	14.0	3	52.5	8	206.5	15	810.2	3	12.0	18	412.5	61	1574.2		
LEXINGTON	22	20.5	8	4.2	4	1.0	3	2.7	6	4.0	5	2.4	17	64.1	17	34.8	38	50.1	38	130.1	13	20.7	14	59.9	185	394.5
LOWER CHARLE											5	10.1	4	14.7	10	78.6	12	54.7	6	28.5	2	20.5	5	6.7	44	213.8
MANCHESTER S																										
MARION	2	.6	1	.2	1	.1			1	7.0			2	.3	4	2.6	5	7.6	3	15.1	7	24.6	32	43.6	58	101.7
MARLBORO	12	14.0	8	17.5	5	5.1	6	40.8	5	1.8	2	.6	7	9.2	10	20.7	20	693.9	13	348.5	8	11.1	12	111.8	108	1275.0
MCCORMICK	5	5.2	3	2.0	1	6.0	1	.1			1	.1	2	.2	2	.2	5	20.4			4	18.6	4	11.2	28	64.0
NEWBERRY	4	13.3	6	14.6	1	.5	3	6.1	1	.5			3	2.8			6	57.2	12	9.3	5	7.5	11	19.8	52	131.6
OCONEE			2	.4			2	3.1					1	.3	2	1.6	2	7.0	6	28.5	2	1.5	1	4.0	18	46.4
ORANGEBURG	5	22.3			3	1.5	9	12.2	9	13.7	5	29.7	9	20.5	26	53.0	46	1006.3	18	56.2	23	57.7	32	106.5	185	1379.6
PICKENS					1	5.0					1	3.0	3	9.1	7	15.7	11	13.4	10	5.7	2	.2	2	1.3	37	53.4
RICHLAND	9	106.7	3	5.0	1	4.0	1	5.0	1	2.0	2	4.0	1	1.0	8	49.2	18	87.6	12	59.0	2	5.2	7	29.0	65	357.7
SALUDA	5	44.1	3	.4	2	1.1					1	.1			4	3.1	3	6.1	2	.4	1	.1	3	7.2	24	62.6
SAND HILLS S																										
SPARTANBURG	9	11.5	1	4.0			3	6.0	2	2.5	2	5.0	4	7.5	9	49.0	6	8.0	15	50.5			7	19.0	58	163.0
SUMTER	6	56.9	1	.1			3	17.0	1	3.0	4	36.0	2	2.1	12	98.3	21	287.3	13	65.7	6	31.6	25	106.7	94	704.7
UNION	3	2.0	6	6.0	1	1.0	2	1.5	1	.5				3	3.5	2	62.0	6	11.0	2	2.5	6	78.0	32	168.0	
UPPER CHARLE			1	1.0					1	1.0	2	7.0	4	6.1	21	252.8	16	89.4	7	45.0	5	169.1	3	10.0	60	581.4
WILLIAMSBURG	7	35.5	1	2.0			8	8.5	3	2.1	10	44.3	14	23.7	33	205.2	55	341.6	67	390.2	20	51.0	32	155.3	250	1259.4
YORK	31	26.1	11	26.0	2	.4	5	1.5	6	2.8	8	4.6	16	23.1	15	13.4	8	20.2	9	33.6	3	8.1	2	27.0	116	186.8
TOTAL	297	1250.1	145	529.0	49	59.6	123	186.3	89	300.3	145	334.5	241	674.2	474	2311.7	746	10215.9	606	4190.2	323	1388.4	614	2938.6	3852	24378.8

South Carolina Forestry Commission  
PROPERTY LOSS REPORT  
From 7/1/92 through 6/30/93

DISTRICT & COUNTY	NBR.	HOMES EST. VALUE	OTHER STRUCT. NBR. EST. VALUE	EQUIPMENT NBR. EST. VALUE	VEHICLES NBR. EST. VALUE	OTHER NBR. EST. VALUE
<b>*CAMDEN DISTRICT</b>						
CHESTERFIELD	3	25,000	1 700	1 90,000	0 0	0 0
KERSHAW	2	120,000	1 3,000	0 0	0 0	0 0
LANCASTER	0	0	0 0	0 0	0 0	0 0
LEE	2	13,000	5 2,250	0 0	1 50,000	1 3,000
RICHLAND	0	0	0 0	0 0	1 3,000	0 0
SUMTER	0	0	5 2,000	0 0	0 0	0 0
DISTRICT TOTAL	7	158,000	12 7,950	1 90,000	2 53,000	1 3,000
<b>*FLORENCE DISTRICT</b>						
DARLINGTON	0	0	1 10,000	1 1,000	2 4,500	0 0
DILLON	0	0	5 4,700	0 0	1 700	0 0
FLORENCE	0	0	10 2,500	0 0	0 0	0 0
HORRY	0	0	0 0	2 55,000	0 0	0 0
MARION	1	10,000	1 300	0 0	0 0	0 0
MARLBORO	0	0	2 550	0 0	0 0	0 0
DISTRICT TOTAL	1	10,000	19 18,050	3 56,000	3 5,200	0 0
<b>*KINGSTREE DISTRICT</b>						
BERKELEY	1	1,000	1 2,000	4 5,000	0 0	0 20,000
CLARENDON	1	2,800	1 1,000	0 0	0 0	0 0
GEORGETOWN	0	0	0 0	0 0	0 0	0 0
WILLIAMSBURG	0	0	0 0	1 1,500	4 12,500	3 2,000
UPPER CHARLESTON	0	0	0 0	0 0	0 0	0 0
DISTRICT TOTAL	2	3,800	2 3,000	5 6,500	4 12,500	3 22,000
<b>*NEWBERRY DISTRICT</b>						
ABBEVILLE	1	6,660	2 1,000	0 0	0 0	1 3,000
CHESTER	0	0	0 0	0 0	0 0	0 0
EDGEFIELD	0	0	0 0	0 0	0 0	0 0
FAIRFIELD	0	0	0 0	0 0	0 0	0 0
GREENWOOD	0	0	1 600	4 190	0 0	22 720
LAURENS	0	0	0 0	2 200,000	0 0	6 300
MCCORMICK	0	0	0 0	0 0	0 0	0 0
NEWBERRY	0	0	0 0	0 0	0 0	0 0
SALUDA	0	0	0 0	0 0	0 0	0 0
DISTRICT TOTAL	1	6,660	3 1,600	6 200,190	0 0	29 4,020
<b>*ORANGEBURG DISTRICT</b>						
AIKEN	2	1,000	2 1,000	0 0	1 200	38 760
ALLENDALE	0	0	0 0	0 0	0 0	0 0
BAMBERG	1	5,000	0 0	0 0	0 0	0 0
BARNWELL	0	0	0 0	0 0	0 0	0 0
CALHOUN	1	0	0 0	0 0	0 0	0 0
LEXINGTON	3	60,000	4 3,000	0 0	8 24,500	1 1,000
ORANGEBURG	1	8,000	2 2,000	1 10,000	0 0	0 0
DISTRICT TOTAL	8	74,000	8 6,000	1 10,000	9 24,700	39 1,760
<b>*SPARTANBURG DISTRICT</b>						
ANDERSON	0	0	0 0	0 0	0 0	100 2,500
CHEROKEE	0	0	0 0	0 0	0 0	0 0
GREENVILLE	0	0	0 0	0 0	0 0	0 0
OCONEE	0	0	0 0	0 0	0 0	0 0
PICKENS	0	0	0 0	0 0	0 0	0 0
SPARTANBURG	0	0	0 0	0 0	0 0	0 0
UNION	0	0	0 0	0 0	0 0	0 0
YORK	0	0	0 0	0 0	0 0	0 0
DISTRICT TOTAL	0	0	0 0	0 0	0 0	100 2,500
<b>*WALTERBORO DISTRICT</b>						
BEAUFORT	0	0	0 0	0 0	0 0	0 0
LOWER CHARLESTON	0	0	0 0	0 0	0 0	0 0
COLLETON	0	0	1 0	0 0	0 0	0 0
DORCHESTER	0	0	0 0	0 0	0 0	0 0
HAMPTON	0	0	0 0	0 0	0 0	0 0
JASPER	3	12,100	2 1,400	0 0	0 0	0 0
DISTRICT TOTAL	3	12,100	3 1,400	0 0	0 0	0 0
<b>*MANCHESTER SF</b>						
MANCHESTER SF	0	0	0 0	0 0	0 0	0 0
DISTRICT TOTAL	0	0	0 0	0 0	0 0	0 0
<b>*SAND HILLS SF</b>						
SAND HILLS SF	0	0	0 0	0 0	0 0	0 0
DISTRICT TOTAL	0	0	0 0	0 0	0 0	0 0
STATE TOTAL	22	264,560	47 38,000	16 362,690	18 95,400	172 33,280

### Percent Of Fires By Cause Five Year Period

Cause	1988-89	1989-90	1990-91	1991-92	1992-93
Lightning	2.3	1.5	1.5	0.8	2.10
Campfire	0.5	0.4	0.4	0.6	0.57
Smoking	3.9	5.1	5.1	4.1	3.40
Debris Burning	30.7	33.4	33.4	31.4	31.31
Incendiary	46.9	41.8	41.8	46.5	43.56
Equipment Use	4.3	5.1	5.1	5.1	6.05
Railroad	1.9	1.7	1.7	0.9	1.56
Children	4.6	4.2	4.2	4.1	4.75
Miscellaneous	4.9	6.8	6.8	6.5	6.70

### Total All Land Fires By Cause

Fiscal Year 1991-92

Causes	Number of Fires	Percent of Total Number	Area Burned (Acres)	Average Area Per Fire (Acres)
Lightning	81	2.10	855.1	10.6
Campfire	22	0.57	310.4	14.1
Smoking	131	3.40	464.0	3.5
Debris Burning	1206	31.31	7954.7	6.6
Incendiary	1678	43.56	11640.0	6.9
Equipment Use	233	6.05	504.0	2.2
Railroad	60	1.56	532.2	8.9
Children	183	4.75	513.2	2.8
Miscellaneous	258	6.70	1605.4	6.2
Totals	3852	100	24379	6.3

### Five Year Summary Fire Statistics

Fiscal Year	Total Area Protected	Forest Land		Non Forest Land		All Lands		Average Acres Per Fire	% Area Burned
		Number Forest Land Fires	Forest Land Burned	Number Non Forest Fires	Acres Non Forest Burned	Total No. All Land Fires	Total Acres		
1988-89	12558258	4990	24950.0	860	4142.2	5850	29092.2	5.0	0.23
1989-90	12558258	3786	16430.6	995	4046.0	4861	20476.6	4.2	0.16
1990-91	12558258	3660	27337.1	669	3198.6	4329	30535.7	7.1	0.24
1991-92	12558258	5619	34970.4	1599	6864.6	7331	41835.0	5.7	0.33
1992-93	12558258	3179	21447.0	673	2931.0	3852	24379	6.3	0.19
Five Year Average		4247	25027	959	4236	5245	29264	5.7	0.23

NOTE: 10% was added to Total Area Protected in 1988-89 to cover Non-Forest Lands Protected



## INFORMATION AND EDUCATION SECTION

The Information and Education Section is responsible for the production and dissemination of forestry information and educational materials to the public.

### Fire Prevention Information

The Hugo fire prevention campaign is overseen and directed by the fire prevention forester on the Fire Management staff. I&E handles production and scheduling of television and radio announcements which support the fire prevention message. The emphasis of announcements, during this fourth post-Hugo fire season, was on enforcement of the fire laws.

Two television commercials and five radio spots were produced. Air time was purchased on five radio stations and a statewide radio news network from mid-December through March. Air time on seven television stations and one cable TV sports network, all covering the Hugo area, was purchased, staggered from the beginning of January through the end of April.

A Fire Danger Index aired during nightly news weather forecasts in three major television markets in the Hugo area.

A videotape entitled YOUR HOME IN THE LINE OF FIRE was produced to supplement an existing brochure with the same title. The video educates South Carolina woodland homeowners in the ways they can build and landscape to minimize the threat of wildfire in the forest interface. Copies of the video were distributed to all SCFC county offices and to fire departments statewide.

The US Forest Service and the Forestry Commission initiated a cooperative venture in fire prevention advertising in the upstate. The Forest Service agreed to purchase air time on a Spartanburg TV station during fire season. The Forestry Commission produced the spots. The campaign educated homeowners and developers who live or plan to build in heavily wooded and mountainous terrain about the potential for wildfire.

A Crisis Report on the status of firefighting equipment in every county was prepared by the Fire Management staff, designed and printed by I&E.

### Forestry Information

Forested wetlands was the theme for the Commission's exhibit at the South Carolina State Fair. The exhibit, which included illustrative photos and a video, was also used at the Coastal Carolina Fair.

Under the auspices of the DIRE emergency program, I&E produced 2 brochures and two follow-up post cards which were mailed directly to landowners in the Hugo area to encourage them to reforest their damaged lands. A traveling exhibit was constructed to promote reforestation in the Hugo area.

The second annual publication on BMPs monitoring was designed and printed. A cost-share brochure was redesigned and updated.

A tri-fold describing the tree species included in a new seedling variety pack was designed to be distributed by nursery personnel.

A ten minute videotape about the development of a park in the town of Chesnee



was produced to be used at the annual Urban Forestry Conference. A video explaining the benefits of tree ordinances was produced with the Greenwood RC&D forester.

### Conservation Education

Lexington County, I&E, and Fire Management personnel held our fourth annual forestry field day at Camp Kemo, a week long camp for children undergoing treatment for cancer.

I&E designed a promotional brochure for the new environmental education program Teaching KATE.

#### *Project Learning Tree*

- The S.C. Project Learning Tree Coordinator held a two day reunion workshop at Santee State Park for 42 PLT facilitators.

- A booklet was developed for teachers correlating PLT activities with the S.C. public school system's Basic Skills Assessment Program (BSAP).

- Project Learning Tree was represented at the statewide science teachers' convention in Columbia.

- A workshop to train Columbia Office staff in the use of Project Learning Tree activities in children's programs on Harbison State Forest was conducted by the Forest Director and the PLT Coordinator.

- A three minute musical theme was written and recorded to be used in all PLT promotional audio/visual productions.

### Woodworking: Shop/Warehouse

Through this facility, a single Master Craftsman supports statewide I&E by providing signage, cabinetry, and exhibit construction. He is also responsible for receiving, warehousing, and distributing much of the agency's printed material.

Accomplishments this year include: construction of 25 outdoor signs for forestry Commission facilities and 10 pieces of custom office furniture; development and woodworking assistance with several exhibits. Six hundred name tags were prepared for various functions, and several custom map frames were built for fire control installations.

INFORMATION AND EXHIBIT ACTIVITIES FIVE YEAR SUMMARY				
YEAR	NUMBER OF PROGRAMS	ADVISANCE CONTRACTS	MEDIA EXHIBITS	PARADE
2000	1,000	1,000	1,000	1,000
1999	1,000	1,000	1,000	1,000
1998	1,000	1,000	1,000	1,000
1997	1,000	1,000	1,000	1,000
1996	1,000	1,000	1,000	1,000

## INFORMATION AND EDUCATION SUMMARY

District	General		School		Fire Prev.		Arbor Day		Workshop	
	No.	Attend	No.	Attend	No.	Attend	No.	Attend	No.	Attend
Camden	19	2,090	75	2,913	17	2,015	6	395	11	370
Florence	24	4,978	52	1,923	19	4,679	8	445	5	129
Kingstree	8	540	11	2,407	33	7,995	6	1,275	7	220
Newberry	34	4,838	36	7,779	34	2,840	10	1,126	13	418
Orangeburg	50	4,753	71	4,663	67	9,711	22	2,750	14	444
Spartanburg	46	5,695	141	6,230	127	19,018	6	708	28	917
Walterboro	18	5,757	32	2,595	164	21,788	7	280	2	88
<b>Total Districts</b>	<b>199</b>	<b>28,651</b>	<b>418</b>	<b>28,510</b>	<b>461</b>	<b>68,046</b>	<b>65</b>	<b>6,979</b>	<b>80</b>	<b>2,586</b>
State Forests	8	2,200	64	4,030						
Nurseries										
Columbia	1	150	3	200			1	150	7	180
<b>Grand Totals</b>	<b>208</b>	<b>31,001</b>	<b>485</b>	<b>32,740</b>	<b>461</b>	<b>68,046</b>	<b>66</b>	<b>7,129</b>	<b>87</b>	<b>2,766</b>

	TV	Print	Radio	Exhibits	Parades
Camden	1	10	1	3	7
Florence	24	40	11	3	7
Kingstree	19	51	21	10	13
Newberry	7	120	11	31	16
Orangeburg	8	35	14	4	21
Spartanburg	68	46	91	7	14
Walterboro	4	12		6	12
<b>Total Districts</b>	<b>131</b>	<b>314</b>	<b>149</b>	<b>64</b>	<b>90</b>
State Forests					
Nurseries					
Columbia	42	77	44	13	
<b>Grand Total</b>	<b>173</b>	<b>391</b>	<b>193</b>	<b>77</b>	<b>90</b>

### INFORMATION AND EDUCATION ACTIVITIES FIVE YEAR SUMMARY

YEAR	NUMBER OF PROGRAMS	ATTENDANCE CONTACTS	MEDIA EXHIBITS	PARADE
88-89	1,053	62,432	914	154
89-90	1,283	106,201	1,330	195
90-91	1,255	101,183	1,339	186
91-92	1,587	148,596	1,156	171
92-93	1,307	141,682	834	90

## ECONOMIC DEVELOPMENT PROGRAM

During the fiscal year, the Economic Development Program responded to requests, generated leads for South Carolina businesses, and worked to recruit forest products and related companies to South Carolina.

Working with the U.S. Forest Service and local communities, two grants were obtained for South Carolina. One was targeted at providing assistance for diversifying local economies heavily dependent on primary processing of timber, and the other to identify development opportunities for a rural community.

The Forestry Commission worked cooperatively with the South Carolina Development Board on an exhibit at the International Woodworking and Furniture Supply Fair in Atlanta, Ga. This is one of the ten largest trade shows in the world, and the 36,000 attendees had a chance to see products from South Carolina companies as well as learn the benefits of locating in the state.

Information was provided to 19 industrial prospects during the year. There were fifteen requests for exporting, 17 requests for miscellaneous information, and 4 requests for wood energy.

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## STATE FORESTS

There are four state forests operated by the Forestry Commission: Cassatt, Harbison, Manchester and Sand Hills.

### Payment to Counties

Twenty five percent of the gross receipts of all state forest operations is paid to the county in which the forest is located. Fiscal year '92-93 payments to counties are as follows:

Chesterfield (Sand Hills State Forest) \$150,269.56

Darlington (Sand Hills State Forest) \$3,695.15

Sumter (Manchester State Forest) \$60,517.30

### CASSATT STATE FOREST

Cassatt State Forest is now operated as a compartment of Sand Hills State Forest. Cassatt State Forest, with 462 acres, is located about two miles north of Cassatt, S.C. in Kershaw County.

### MANCHESTER STATE FOREST

Manchester State Forest, located south of Wedgefield in Sumter County, contains 28,830 acres. From 1939 to 1955, this land was leased by the Forestry Commission from the federal government. The state received title to this property on June 28, 1955.

### Receipts

#### RECEIPTS FOR OPERATING BUDGET

PINE STRAW	\$ 14,875.00
TIMBER SALES 241,674 BD. FT., 3,361 CDS.	\$199,999.18
WILDLIFE	15,211.01
AGRICULTURAL LAND RENT AND LEASES	108,867.00
TOTAL	\$338,952.19

Twelve educational programs were conducted on the forest for approximately 260 people.



Timber sales efforts were devoted to harvesting scattered timber from understocked areas on the forest and selectively thinning pine plantations in the proposed expansion area for the Air Force's air to ground weapons range.

Pine straw sales continued primarily in areas requiring clean up to improve the quality of straw following Hugo salvage thinnings.

The major accomplishment during the year was the renovation of a house into an office for the state forest. The office was informally moved from the shop building to the renovated structure on February 26, 1993 (one year from the date that the house was moved to its new site).

### **Silvicultural Practices**

Site preparation by drum chopping was initiated on 75 acres, but was suspended due to the area's inclusion in the proposed expansion of the U.S. Air Force Poinsett Weapons Range. A total of 144 acres were planted, which includes 73 acres of spot planting by private vendors to improve stocking on sites planned for natural regeneration.

The following species and number of trees were planted:

Improved Coastal Loblolly	44,500
Longleaf	28,500
Total trees planted	73,000

Eighty free use permits were issued to homeowners to rake pine straw for personal use.

One thousand nine hundred twelve acres were prescribed burned to enhance wildlife habitat and for hardwood control.

### **Forest Protection**

Four forest fires occurred during the year burning a total of 8.5 acres. Firebreaks were maintained in high value and high hazard acres. Periodic checks are made for insect and disease damage.

### **Recreation/Education**

Recreation other than hunting and fishing includes rifle/pistol range, mountain bike, motorcycle, and horseback riding. A total of eight organized group activities were held on the forest involving an estimated 2,200 people.

The rifle/pistol range continues to be operated by a corps of volunteers. A total of 400 annual free use permits were issued for the range.

Sixteen educational programs were conducted on the forest for approximately 530 people.

### **Wildlife Management**

Approximately 20,000 acres of the forest are included in the Wildlife Management Area Program through a cooperative agreement between the Forestry Commission and Wildlife & Marine Resources Department.

An intensified program of wildlife management was conducted, with the Wildlife Department providing assistance in wildlife management and law enforcement. Biologists initiated work on developing a wildlife management plan for the forest as well as recommendations for managing ponds.

Planting or maintenance was carried out on 63 wildlife plots containing 670 acres. State Forest personnel spent 2,017.5 man hours on wildlife management activities; expenditures for materials totaled \$8,749.14

### **Shaw Air Force Lease**

The U.S. Air Force leases 7,996 acres of the forest for an aerial gunnery range to train pilots from various Air Force bases in the southeastern U.S. The South Carolina Air National Guard has access to the range and uses it frequently.

During the year, the Air Force initiated work on a proposal to obtain ownership of the range, as well as an additional 4,500 acres of the forest, through a trade involving Myrtle Beach Air Force Base property. It is anticipated that the trade will be completed by the end of this federal fiscal year.

## **SAND HILLS STATE FOREST**

Sand Hills State Forest, located in Chesterfield and Darlington Counties, contains 46,000 acres. Leased from the federal government in 1939, title to the forest was transferred to the Forestry Commission in 1992.

### **Silvicultural Practices**

Trees were planted in fields and on lands that were harvest-cut and site prepared. A total of 498 acres were planted with longleaf pine.

Prescribed burning was done on approximately 8,484 acres. Compartment 12 had 4,433 acres. Compartment 13 had 726 acres and Compartment 17 had 3,325 acres burned respectively. The South Carolina Forestry Commission also burned 5,000 acres on the Sand Hills National Wildlife Refuge as per a five year agreement with the Department of Interior upon receipt of title to the Sand Hills State Forest. There are three years remaining in which prescribed burning is to be done under said agreement.

### **Forest Fire Protection**

Nine (9) wildfires occurred on the forest burning a total of 65.1 acres for an average of 7.2 acres per fire.

### **Recreation**

Groups and individuals are encouraged to continue to use the State Forest.

### **Wildlife Management**

Sixteen acres of new openings were established for wildlife with even more openings established in clearcuts that have not been planted yet.

Eighteen fields already established were limed this past year. Bicolor patches in Compartment 17-21 that have not been managed in several years were bushhogged and fertilized.

Personnel installed new wood duck boxes furnished by the SCWMRD. The forest will receive new boxes every year from the SCWMRD.

Lee Pond opened for fishing in July 1993. Campbell's Lake was checked for population balance and found to be out of balance.

Quail Unlimited of Chesterfield County is again helping improve the food

supply of this important game bird. They are providing seed and fertilizer for use on the forest.

### **Farm Land Rentals**

Eleven (10) farmland contracts covering 501 acres were renewed. All of these are planted to corn, beans, grain or one of the lespedezas. All of these should benefit the wildlife program.

### **Road Maintenance**

Because of pine straw theft and garbage dumping, we continued the process of closing all unnecessary roads. Closed roads will be planted in grass. Roads left open will be reworked to provide better drainage.

#### **RECEIPTS**

##### **PINE**

1,428,933 bd. ft.sawtimber  
7,776 cords

\$731,988.44

Pine Straw

37,825.18

Land Rentals

\$6,994.00

Hunting and fishing (WMA)

\$15,355.16

Stumps (408.4 tons)

\$2,642.21

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TOTAL

\$794,804.99

### **Forest Research and Demonstration**

The longleaf regeneration study continues under the supervision of the U.S. Forest Service.

Hardwood growth study plots were installed in Lynchess River flood plain. Growth and merchantability of several hardwood species will be studied over a period of time.

A species suitability study was established on an old field site to compare growth of several species of southern pine.

### **Information and Education**

Information is available at the Forest headquarters and permit stations describing hunting, fishing and other activities. Public contact is made while issuing permits



and routine field checking.

The annual prescribed burning school conducted by the Forestry Commission was again held at Sand Hills. Public and private foresters and technicians participated.

Information has been posted at Sugar Loaf Mountain Recreation Area concerning new rules and regulations in an information stand placed at the entrance to Area 1.

### **Red-cockaded Woodpecker**

Management work was done in Compartments 12 and 17. Scrub oaks and other brush were mechanically cleared for 100 feet around each RCW tree. Trees were repaired, retagged, maps updated, and den trees raked around before prescribed burning.

A RCW banding program was begun in cooperation with the S.C. Wildlife and Marine Resources Department. Ninety two (92) RCW's were captured, color banded, and released to facilitate field identification of individual birds and to enable tracking of their movement on the forest. Nest checks were made regularly during April, May, and June. Nestlings were banded at 5 to 9 days of age.

Restrictor plates were installed on many trees to prevent endangerment of RCW cavities by other woodpecker species.

Artificial RCW cavities were installed in cooperation with the SCWMRD. Cavities were installed only in active RCW sites where more cavities are needed for roosting. Installation of artificial cavities reduces predation of the woodpecker by providing nighttime roost locations.

### **Prescribed Burning**

Prescribed burning was done on approximately 8,484 acres in Compartments 12, 13 and 17.

## **Harbison State Forest**

Harbison State Forest, located northwest of Columbia in Richland County, contains 2,188 acres. The tract is being developed as a public greenspace, emphasizing environmental education and demonstrating forest management practices.

### **Construction Projects:**

The staff began construction of a restroom in the arboretum area. One mile of trail was constructed and three trail bridges.

### **Educational Activities:**

School and scout programs were presented to 48 groups with an estimated attendance of approximately 3500. Four Eagle Boy Scout projects were completed. An Explorer Post was established with fourteen high school students participating.

### **Management Activities:**

One timber sale was conducted, on 75 acres with a volume of 179,265 board feet and 335 cords marked for thinning. Twenty-five acres were prescribed burned. Harbison experienced no wildfires during the year.

## **STATE LANDS MANAGEMENT PROGRAM**

The state lands forest management program was created to provide professional forest management assistance to South Carolina state agencies that own timberlands.

During fiscal year 1992-93, six agencies requested assistance from the state lands forester. The agencies and facilities were as follows:

- Department of Wildlife and Marine Resource

- Webb Wildlife Center
- Santee Coastal Reserve
- Tillman Sand Ridge Heritage Trust
- Mason Wildlife Tract
- Donnelley Wildlife Center

- John de la Howe School

- Department of Parks, Recreation, and Tourism

- Givhans Ferry State Park
- Hunting Island State Park
- Hampton Plantation State Park
- Redcliffe State Park

- Budget and Control Board
- General Services

- South Carolina State College
- Camp Harry Daniels

- Department of Corrections
- Wateree Correction Center

Total Number of Documents Printed	<u>255</u>
Cost Per Unit	\$ <u>2.46</u>
Printing Cost - S.C. State Budget & Control Board (up to 255 copies)	\$ <u>627.48</u>
Printing Cost - Individual Agency (requesting over 255 copies and/or halftones)	\$ <u>-</u>
Total Printing Cost	\$ <u>627.48</u>